The Lettsomian Lectures
ON
SYPHILIS AND THE NERVOUS SYSTEM.

Delivered before the Medical Society of London,

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LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—Permit me first to tender to you, Sir, and the Council, my thanks for selection to the post of Lettsomian Lecturer to this Society, a post around which cluster so many honourable associations. The duty which that selection lays upon me, and which I have now to attempt to discharge, has difficulties of its own. This Society constitutes an audience with the widest professional interests, but, above all, with an interest in the practical aspects of medical science. This characteristic has been handed down through successive generations of its Fellows, from the time when theory bore a much smaller proportion to practice than it does now. It is not one that should be lightly esteemed or hastily discarded, especially in these days, when the "scientific imagination" is apt to wander far and free. The subject to which I propose to ask your attention is the only one within the range of my own work which seemed to be of practical importance, and likely to interest both the medical and surgical Fellows of the Society. It is one in which, more perhaps than in any other, the two great branches of the profession join hands in mutual supplement of work. This co-operation is the more important because the disease we are to consider turns to each a different face. To the surgeon the processes of syphilis are for the most part open and manifest; to the physician its processes are secret, its ways obscure, its language seldom unequivocal.

The subject has, indeed, once already been made that of the Lettsomian Lectures. Those of my distinguished predecessor, Dr. Broadbent, together with the almost simultaneous work of Dr. Buzzard, were the means of first diffusing widely in this country a knowledge of the extensive influence of syphilis on the nervous system. But the fifteen years that have since passed have been prolific in additions to our knowledge, and the time seems ripe for a fresh review of at least some aspects of the subject. Not only are there many new facts that deserve notice, but there are many doubtful points that need consideration. If it is desirable to review our positive knowledge, it is not less important clearly to discern its limits. There is perhaps no subject on which there is so much of what may be termed, if the convenient contradiction is permitted, uncertain knowledge—in which there are so many opinions that rest on no secure foundation, and yet are accepted as true—so many mere hypotheses that are put forward and received as more than hypothetical—so much that is possibly true, and yet is still unsupported by any real evidence. Hence it seems especially desirable to consider the kind of evidence that has been, or may be, obtained as to the relation to syphilis of many of the diseases of the nervous system. There are, moreover, some practical questions in diagnosis and prognosis that need consideration. Lastly, there are questions in treatment on which current opinion is divided, and a discussion of these, even if partial, may at least be of service by drawing to them the attention from many which they at present receive only from a few. These, then, are the topics to which I propose to ask your attention.

I dare not depart from the time-honoured custom of a preliminary apology, especially as I feel that an apology is not unneeded. Indeed, that I may be quite on the safe side alike of custom and of conscience, I will be bold in my humility and offer you two apologies. First, you have a right to expect from a Lettsomian lecturer something new, some definite addition to our knowledge. This reasonable expectation I fear I must disappoint. It is scarcely compatible with the chief object that I desire to attempt. My second apology arises from the fact that we cannot separate one part of a disease from the rest. In considering syphilis as it affects the nervous system, and especially the question of evidence, I cannot avoid alluding to points in its history that I am not competent to discuss. In this, also, I must ask your indulgence; and it may save time and words if once for all I beg you to impute to me all due diffidence and hesitation wherever they are seemly, even though, in the exigence of the moment, they may not be manifest.

Among the visceral effects of syphilis those that are to occupy our attention stand first in extent, variety, frequency, and gravity. Considering this fact it may seem strange that our knowledge of these lesions should have been of especially slow growth and late development; and that so vast a range of syphilitic influence was scarcely suspected thirty years ago. But we must not forget that, thirty years hence, some future Lettsomian lecturer, now playing with his toys, may make the same remark of the knowledge of the present day. The cause that has hindered our acquaintance with these diseases is not far to seek. It is a cause that we cannot and must not hope to be lessened in the future—the old and inevitable antagonism between pathology and therapeutics. Each flourishes at the expense of the other. The ends for which we gain our knowledge are the chief obstacle to its acquisition. In proportion as we are successful in treatment, we are dependent on the "chapter of accidents" for information as to the real nature of the disease. This influence has affected syphilis more than most other maladies.

The ultimate pathology of syphilis, even in its special relations, is beyond the limits I have set to the subject of these lectures. That the cause of the disease is a micro-organism can scarcely be doubted by anyone who has followed, even from afar, the discoveries which have transformed so much of our pathology, although it may reasonably be doubted whether the organism has yet been detected. That the organism is the immediate cause of most lesions seems also in the highest degree probable, from what has been already ascertained regarding leprosy. But beyond this I must not go. It was part of my original intention to endeavour to confer some semblance of vitality on the dry bones I have to offer to you, by indicating the form in which some of the pathological problems of syphilis present themselves at the present day, and the kind of answer we may reasonably expect from the knowledge that we hope the near future has in store. But for a profitable discussion of such questions, even for a tentative discussion, the time is not yet ripe. At present we have no guide but analogy, certainly not close, and possibly misleading, and I desire to avoid as far as possible the purely speculative.

Permit me at the outset to remind you of certain general considerations regarding the effects of syphilis. They are considerations that are not speculative, but merely abstract, and are familiar to you—certainly in fact, and probably in form. If we compare the various syphilitic lesions, not limiting our view to any single organ, we seem to discern in them two elements—a process of inflammation and a process of tissue formation. It might seem more accurate to call the former the "congestive" element, since tissue formation is so often a part of the process of inflammation; but the term "congestion" involves a limitation, and is scarcely wide enough for the purpose. We can mentally distinguish these two elements, and the distinction is aided by the fact that they are combined in various degrees in the different lesions. The process of tissue formation is seen in almost a pure form in gummata, in which no more of the congestive element is to be discerned than in most other tumours. On the other hand, the inflammatory or congestive element is almost or quite pure in many of the early skin eruptions, in some cases of iritis, and in many other lesions. Generally the two elements are combined, and the most common condition is that often termed "hyperplastic inflammation." Sometimes the combination is such that it is not easy to decide in which class a lesion should be placed, whether it should be regarded as a hyperplastic inflammation or as a diffuse gumma.

If we survey the course of syphilis, there seems to be a tendency for the congestive or inflammatory element to preponderate in the early lesions, and the tissue formation in the later, although to this the earliest lesions, the primary induration and the enlargement of the nearer glands, are

apparent exceptions—exceptions that will have to be considered whenever wider and deeper knowledge brings with it the possibility of framing an adequate hypothesis as to the real pathology of the disease and the relation of the virus to the several lesions. It has been, indeed, suggested that there is no real difference between these two elements. The tissue formed in syphilitic processes differs but little from that formed in ordinary inflammation; and on this ground, and also because it is combined in various quantity with the signs of inflammation, it is urged that even the gumma has closer affinities with inflammatory products than with the true new growths. But a full admission of this opinion, if its admission is justified, does not preclude the distinction of the two; for it is often well to distinguish when we have no right to divide. The distinction seems to be justified if each may exist so far alone that we cannot clearly discern the other. Whatever be the real pathological position of the tissue formed, it presents certain characters not found in the same degree in ordinary inflammatory products, and it is very important to keep these in mind. First, the peculiarity of aspect of a recent formation—the gluey appearance to which the name "gumma" is due. Secondly, the tendency to undergo certain changes; for the tissue elements to perish in caseation, or to undergo a change into a dense contracting fibrous tissue. The gluey aspect and the caseation constitute the most important characters by which this tissue can be identified. The tendency to degeneration is so widely, although irregularly, diffused through a mass that the cheesy change usually begins at many places. This tendency to multiple caseation, and the irregular areas thus produced, constitute the most important later criterion of the nature of the tissue. Lastly, the tendency to change to a contracting fibrous tissue is of extreme importance in relation to the effects produced, by which the lesion is manifested. This fibrous change often takes place in the tissue at the surface of a gumma, as part of its degenerative or cicatricial changes, and it is probably this that has given rise to the erroneous statement sometimes made that a capsule is characteristic of these growths.

We may divide syphilitic lesions into certain classes, according to our knowledge of their pathological characters, and we may expect to find these classes represented in the nervous system. First, there are morbid processes with characters that are peculiar—processes due to no other cause. Secondly, there are processes that are not peculiar; so far as we can see, they resemble those that are due to other causes, although they are produced by syphilis. Some of this second class, however, although not special in pathological characters, are yet, when due to syphilis, peculiar in their seat and distribution. Others have not even this peculiarity, but may be described as lesions due to many causes, one of which is syphilis. I do not say they are not really special and peculiar; I only say that we cannot discern the peculiarity. Outside the nervous system we see many examples of these varieties. They are conspicuous, for instance, in the skin. A gumma, ulcerating in a serpiginous manner, is an example of a truly special lesion. Many other cutaneous syphilides, such as roseola and psoriasis, however, have no true pathological peculiarity, although most of them, when syphilitic, are peculiar in distribution. Many cases of syphilitic iritis are special in aspect, but others present no peculiarity to distinguish them from inflammation of the iris due to other causes. Thus simple iritis, simple so far as we can see, has several causes, of which syphilis is one. Speaking generally, the more the congestive or inflammatory element preponderates in a lesion, the less special are its pathological features. These depend chiefly on the element of tissue formation. Necessarily also, as the latter needs time for its production, the more acute a syphilitic inflammation is, the less are its features distinctive. This is, I think, a very important consideration.

It is desirable to keep this classification in mind in considering the lesions of the nervous system, because the evidence as to the syphilitic nature of a lesion necessarily differs in the several classes, and it will be desirable to adopt this classification in reviewing the several lesions and the evidence regarding their nature. I must pass unnoticed those that are produced through the agency of bone disease.

We begin, then, with the lesions of which syphilis is the only cause. They possess distinctive characters, and it is found that syphilis is their invariable antecedent. It can be traced in a large proportion of the cases, and the more thorough our knowledge of the individuals, the smaller is the proportion in which the evidence of syphilis is not clear. On the other hand, these lesions are never met with in cases in which syphilis can be excluded with certainty. From their special characters they may be termed "specific" lesions. We need this term for them, and it is a misfortune that the word has come to be used in a wider sense, as a euphemism for "syphilitic." For this, moreover, there is a word that might with advantage become as current here as it is in Germany—"luetic." I propose, therefore, to use the term "specific" in the sense of a lesion that is special, not only in its causation, but also in its characters. These truly "specific" lesions I must pass over with merely a brief mention, because they are the best known of the effects of syphilis, regarding which there is least room for question. It will be remembered that I am now dealing only with pathology; we shall have again to consider these lesions in regard to a practical diagnosis, in which they furnish many important problems.

First, there are the syphilitic growths, gummata, circumscribed masses of new tissue having the characteristics I just mentioned. They grow commonly from the pia mater, and both compress and invade the substance of the brain or spinal cord. They are rare within the substance of the brain; rare, also, although sometimes symmetrical, on the cranial nerves. Occasionally there is a more diffuse formation of similar tissue in connexion with the dura mater, cerebral or spinal. Secondly, there are the growths in the walls of the arteries, which constitute one of the most important of these specific lesions; but they also are well known, and need not detain us. I would ask you to note, however, in passing, the remarkable correspondence in seat with atheroma. Except in the arteries of the brain and in the aorta, syphilitic disease is scarcely known save in association with other adjacent lesions. We ascribe the proclivity of these vessels to atheroma to the influence of strain. Is this also the cause that determines their affection in syphilis? I can think of no other, but the fact must be borne in mind in connexion with certain theories of the origin of the lesions.

Many points regarding this arterial disease will have to be considered in connexion with the diagnostic problems connected with it, but certain of its pathological consequences must not be passed over. The first is the necrotic softening that follows occlusion of the diseased artery, or more often that of a branch coming off from the diseased spot. It is by this necrotic symptom that the disease most frequently causes symptoms. It should be noted, however, that the occlusion does not always lead to softening. Induration may result, especially in the cortex, and more often in children than in adults. It is no doubt due to the arterial anastomoses being sufficient to prevent actual necrosis, although insufficient to maintain the integrity of the tissue.

A second effect is the production of aneurysm of the larger arteries—those that are the special seats of the disease. We know two other causes of such aneurysm. One, very rare, is traumatic arteritis; the other is embolism, which is probably the cause of two-thirds of these aneurysms before the degenerative period of life. In the remainder, in which there is no evidence of injury or of embolism, there is a history of syphilis in so many cases as to justify the opinion that most of them are due to it. Often the history is imperfect, because the aneurysm has been unsuspected until the final rupture. Indeed, when we consider how great is the amount of change in the wall of the vessel, and how prone the new elements are to change into simple fibroid tissue, the wonder is that aneurysm is not a more frequent consequence. Probably the explanation is to be found in the common persistence of the elastic layers, which afford the greatest safeguard against permanent dilatation. I am only able to offer one additional instance of an aneurysm due to syphilis. A woman aged about twenty-five, who had suffered from syphilis, was admitted to University College Hospital with the symptoms of a small tumour near the crus. Soon after admission she died with symptoms of a sudden cerebral hæmorrhage. A large amount of blood was found at the base of the brain; it had come from a small aneurysm, the size of a large pea, on the posterior cerebral near its origin. No source or evidence of embolism could be found.

A third and very rare effect of a syphilitic vascular disease is hæmorrhage within the substance of the brain. Doubtless, the reason why it is so seldom met with is because the

arteries within the substance of the brain are so seldom the seat of syphilitic disease. A few cases have been met with, and I have seen one remarkable instance of it in the inherited malady. The patient was a boy aged thirteen, with clear evidence of constitutional syphilis. He had suffered from some transient cerebral symptoms at the age of eight. The hæmorrhage wat a large one; it had destroyed the greater part of one cerebral hemisphere, and had burnt into the ventricles. Although its source was not discovered, there was such disease as to leave no doubt of its cause. There was extensive and characteristic syphilitic thickening of the right vertebral artery, and there were some smaller spots on both the posterior cerebrals. Moreover, the aorta presented some patches of similar disease. Other spots could be seen on each coronary artery (both at its origin and along its course), and several raised yellowish patches existed on the flaps of the mitral valve. There were no vegetations, and it should be added that the boy had not had rheumatic fever. The case is thus remarkable on more than one account, and not least so on account of the comparatively late age at which the disease occurred.

Inflammation that is specific in its pathological features is chiefly meningeal. The special characteristic is its hyperplastic character, in this resembling most other specific inflammations. Much new tissue is produced, and this may undergo either the caseous or the fibroid change. Either of the two membranes may be inflamed. In the dura mater the inflammation is usually diffuse, and the tissue formed undergoes chiefly the fibroid change. This "pachymeningitis" is more common in the inherited than in the acquired disease. In the pia mater the inflammation is usually local and the new tissue abundant. It may undergo the characteristic caseation, or fibroid change may result in a layer of dense cicatricial tissue, in which any nerve roots at the part are inseparably involved. In the spinal cord the most frequent chronic inflammation is that of the dura mater, producing the important and well-known "spinal pachymeningitis." This may damage greatly not only the spinal and bulbar nerve roots, but the cord itself. Inflammation of the pia mater is seldom local, and is usually combined with the affection of the dura mater.

Inflammation of the substance of the brain or cord that can be regarded as pathologically specific is very rare. Inflammatory softening and induration have been described, but some of the cases are open to the question whether the lesion was not due to arterial disease. If such lesions occur, they do not seem to be specific in aspect. A case of chronic disseminated inflammation has been described by Charcot and Gombault, which may, however, be regarded as typically specific in character. Foci of chronic inflammation existed in the brain, pons, and optic nerves, in which there was an abundant production of new tissue, presenting in some foci multiple points of caseation, although in others the tissue had undergone only the fibroid sclerotic change. Very little is definitely known of inflammation of the cranial nerves that is pathologically specific. These nerves are often damaged by gummata, and especially by chronic meningitis at the base of the brain; but there is also strong reason to believe that they are often the seat of syphilitic inflammation, involving the sheath and interstitial tissue. From the meagre facts that are available, it is probable that this inflammation is usually hyperplastic in such a degree as to be recognisably specific, but we must wait for more data before we can affirm the fact with confidence. It is remarkable that the peripheral parts of the spinal nerves very seldom suffer. The discovery of the susceptibility of these nerves to various toxic influences has revealed no liability for them to be influenced by syphilis.

It will be observed that in speaking of specific pathological characters I have alluded only to those that can be recognised by the naked eye. I do not think that at present any confidence can be placed on histological characters only. Even the structure of the gumma is not distinctive; all that the microscope enables us to say is that the tumour *may* be syphilitic. In the case of inflammations, it is very doubtful whether the histological characters have anything like the significance sometimes ascribed to them.

Are there any lesions of the nervous system that can be said to belong to the second class—lesions that present no pathological peculiarity—lesions that are due to no other causes besides syphilis, and yet, when syphilitic in origin, have peculiarities of distribution not present when they are due to other causes? The facts hitherto ascertained are scarcely sufficient to *prove* the existence of such lesions. There are a few, however, that may possibly be of this character. One is a form of disseminated subacute myelitis, in which defined islets of inflammation occupy the white substance of the cord, chiefly near the surface, and are perhaps sometimes met with in the brain. This form has been described as related to syphilis by Julliard and Pierret, and I have met with one instance. Although syphilis seems to have been its antecedent in the cases hitherto published, more observations are needed before it can be regarded as a specific lesion, even when its peculiar insular character is taken into consideration, and the facts at present do not prove specificity apart from its distribution. The same may be said of a form of multiple inflammation of the spinal roots (regarded as specific by Kahler, and of certain forms of sclerosis of the cortex of the brain (without arterial disease) met with by Barlow in infantile syphilis. It is not likely that this completes the series of obviously specific lesions. Many other morbid processes may yet be added, by reason of their characters or seat, when our knowledge of them is rendered adequate by a sufficient number of observations. For the present, however, they must be placed in the class we have now to consider—the lesions of which syphilis is one of several causes, lesions analogous to the apparently simple iritis. The chief morbid processes which seem to fall into this class are two: first, certain acute and subacute inflammations; and secondly, certain forms of chronic inflammation or focal sclerosis of the nerve centres. In the same category, however, we must also place the remaining important class of primary nerve degenerations. These we shall notice later, but the methods we are about to consider are applicable to them also.

The question of evidence is of the greater importance in regard to cases of this class, because we have to proceed to some extent without the aid of pathological observation. We can make the diagnosis during life with considerable confidence in some of these cases, especially in the acute inflammations. In these, opportunities for pathological observation come seldom; and it is very doubtful whether, when they do come, they afford any real help in these cases. We have already seen that it is the new tissue which gives to the *specific* lesions their distinctive peculiarity. For the formation of this tissue, time is essential. In proportion as syphilitic inflammations are acute, the inflammatory or congestive element preponderates, and the lesion assumes an apparently simple character. Obviously, therefore, if an acute inflammation is produced by syphilis, we cannot expect it to present such specific features as would declare its nature. We cannot expect, therefore, that a post-mortem examination would decide the question. And yet we need, and urgently need, to know whether such lesions are or are not among the results of syphilis—to know it by sure conclusion, and not merely by guesswork.

In the case of these apparently simple lesions only two kinds of evidence seem at present within our reach. The first is such sequence as proves causation. The second is the evidence of therapeutics. It is desirable to examine these two kinds of evidence, to inquire how they can be obtained, and to what limitations they are subject. This inquiry is important because current ideas on the subject are for the most part vague (at least, if we may judge by their applications), and also because, with one exception, I do not see where we are to look for other evidence. This exception is the prospect that the progress of bacteriology may supply us with a conclusive criterion—the presence of specific micro-organisms in a lesion. Such a criterion would be available also for the specific lesions, but for them it would be merely confirmatory; for those now under consideration it would be essential. Unfortunately, such a criterion is still in the dim, if not in the distant, future. We cannot assume that it will certainly follow the discovery of the specific organism, or that its application would be unlimited. It is not likely that the test would be of negative as well as positive value, that absence of the organism would be as conclusive as its presence. Thus even this criterion may not relieve us from the need for such proof as we are now to consider.

Regarding the evidence of *sequence*, the first important consideration is that the isolated instances of sequence are no proof of causation. Let me again remind you that I am speaking of scientific proof, not of diagnosis. Individual sequences would be proof if we could exclude all other causes of the disease; but this is, as a rule, beyond our power. The diseases in question have many causes, and

those causes are imperfectly known, so that their exclusion in a given case is impossible. The fact that we cannot trace them does not prove that they do not exist. We are often unable to trace the cause when there is no question of syphilis, although some adequate cause there must be. Hence, when there is syphilis, the fact that we cannot trace any other cause does not justify us in concluding that the disease in question is due to syphilis. To do so is to treat the unknown as the non-existent, and to base our induction not on our knowledge but our ignorance. Consider how many diseases coincide with or succeed constitutional syphilis which no one dreams of attributing to it. We do not ascribe acute rheumatism or acute sthenic pneumonia to preceding syphilis, and yet, because a morbid process occurs in an organ, as the spinal cord, which is sometimes the seat of syphilitic processes, it is assumed that the process is due to syphilis merely because the patient is or has been syphilitic. It is perfectly certain that such a combination must often occur when there is no causation; it is certain from the mere law of chance; but such a coincidence, without direct causation, may well be more frequent than mere chance will explain. A general disease like syphilis may so influence the general health as to predispose to many diseases for which other causes may exist. Therefore, while individual instances of sequence may justly direct attention to the possibility of causation, while they may suggest a search for other evidence, they do not prove causation. Indeed, I should not venture to call your attention thus specially to a rule that is so obvious, were it not that medical literature abounds with cases in which causation by syphilis is assumed to be proved by a single sequence, and the possibility of mere coincidence seems never to have been thought of. How, then, can sequence prove causation? How can the fact that a disease follows syphilis be evidence that it is due to syphilis? Only by the strength of numbers. The sequence that is without significance when isolated is all important when traceable in a series of cases. This method is so well known, and has been so largely employed in the case of tabes and other maladies of the same class, that it may seem needless to consider it in detail. But its use must be widely extended if we are to ascertain whether or not many other diseases are related to syphilis, and its value depends largely on the manner in which it is employed. The number of cases necessary will vary according to the field of observation, the frequency of the disease, its incidence on age and sex, and the nature of the proof required. A small number of coincidences, in a fair field of observation, may be sufficient to prove the mere fact of causation, although a much larger number will be necessary to enable its extent to be estimated. It is only practicable to approach the question from the side of the disease to be tested, because even the diseases that are certainly consequences of syphilis are rare consequences, so that from the side of syphilis, it is not easy to get an adequate view of them. It will also be convenient, in the case of many diseases, to restrict the inquiry to the age at which syphilis is common and the sex in which it is most readily ascertained. If the restriction is the same in each series compared, the validity of the result is not affected. In inquiring into the influence of syphilis in causing any disease, therefore, it is wise to let the cases combined be those of males only, and not over twenty-five years of age. In some cases it may be well to narrow the limit to cases between twenty-five and fifty.

The first task is to ascertain the average frequency of past or present syphilis in males over twenty-five. This term of the comparison, which we may call "the standard," will be the same for all diseases. It is of great importance that it should be ascertained once for all from a field sufficiently extensive to place the conclusion beyond the reach of doubt. Although this one set of facts will be sufficient for all diseases, it will probably not be sufficient for all classes or for all places, for it is probable that in both class and place the frequency of syphilis varies. It is probably greater in the lower than in the middle and upper classes, greater in the urban than in rural districts, greater in seaports than in inland towns. Attempts have been made abroad on a small scale to ascertain the facts, but not, I think, in this country. I regret that I am not able to offer a contribution to the question of more than a very small extent. I venture, however, to hope that the need once pointed out may not be long unsupplied. Messrs. Raymond-Johnson and Marriot have kindly collected the venereal history, positive and negative, of 112 patients at University College Hospital not under treatment for syphilitic disease; and Mr. Littlewood that of 200 patients at the Leeds Infirmary. The result is that in London there is a history of syphilis (including a few of certainly hard chancre only) in 10·5 per cent., and of a chancre of uncertain nature in another 10 per cent. At Leeds the percentage of syphilis or hard chancre is only 6·4, and of a chancre of uncertain nature only 6 per cent. This shows clearly the need for more than one standard. But such standards ought to be obtainable without much difficulty. A few months' observation by the registrars of all the London hospitals would supply us with a London standard drawn from at least 5000 cases, which would be available for all similar inquiries for many years to come. But the figures I have given place before us at once one of the difficulties of the process of comparison. It is certain that some of the patients who give a history only of a chancre have had an infecting sore, but how many? What proportion of the chancre percentage should we add to the syphilis percentage to obtain the nearest approximation of the truth? Here, again, we need facts; but some are ready for us. Mr. Berkeley Hill and others, in this country and abroad, have published analyses which show that at least two-thirds of all venereal sores are infecting. We have, however, already taken count of the cases of *certain* syphilis, and of the remaining sores probably the majority are not infecting. If we add to the percentage of syphilis one quarter of the cases of chancre, it will give us 12·5 per cent. of syphilis in London and about 8 per cent. at Leeds. In London, therefore, among the lower classes, syphilis may be assumed to affect at least one-eighth of the males over twenty-five. The proportion among the middle and upper classes is probably less than among the poor. It is unlikely that it reaches a tenth, even in London, but definite facts will be less easy to obtain.

In the other term of the comparison we ascertain, in a similar manner, the percentage of syphilis among the sufferers from the disease in question who are of age and sex corresponding to the cases compared in the standard. If the proportion exceeds that of the standard, the excess must be due either to the one disease being a cause of the other, or to the fact that both are due to a common cause. Obviously, however, the only conceivable relation is that syphilis is in some way the cause of the disease in question. If the excess is slight and the interval is short, indirect causation is possible; that is, syphilis may have predisposed merely as any other depressing disease may predispose. If the excess is considerable, we must assume direct causation. But the comparison itself is not quite a simple matter. The significant fact is the *excess* of the syphilitics among those who suffer from the disease, and we have to ascertain this excess. It may seem sufficient to deduct the percentage in the standard from the percentage in the disease, and to consider the difference as the percentage of causation. But this would be erroneous, as an example will show. Let us assume, taking simple numbers for convenience, that the percentage of syphilis in the standard is 10, and in the disease 50. It is not right simply to deduct 10 from 50 and assume 40 per cent. causation. We start with 100 cases, and if we thus deduct 40 as the proportion of causation, we have left 10 cases of accidental coincidence and 50 without syphilis. Thus we assume that in 10 cases out of 60 there is mere coincidence, whereas our assumed standard shows that in 60 persons the proportion of syphilitics will be only 6. The true method, I take it, may be expressed in the following rule. Deduct from the syphilitics the number that bears the same proportion to the non-syphilitics as is found in the standard; the residue will represent causation. Thus, in our example we must deduct from the 50 syphilitics not 10, but 5·5, because 5·5 bears nearly the same relation to 50 as 10 does to 90 (10 in 100), and the proportion in which there is causation will not be 40, but 44·5. It is certain that such a deduction for mere coincidence is necessary in the case of diseases that are often due to other causes, although it is open to consideration whether this deduction is justified in the case of diseases of which syphilis is the chief cause. But its amount lessens in inverse ratio to the proportion in which syphilis can be traced; and when this proportion is high, the deduction becomes so small as to be unimportant. If, for instance, syphilis can be traced in 80 per cent. of the cases, the deduction for coincidence would be less than 3 per cent. The error from neglecting it will then be

scarcely appreciable, especially in the face of the graver source of uncertainty we have next to consider.

Whatever proportion of syphilis is found will fall short of the truth. This is certain from the fact that persons occasionally suffer from syphilis and do not know it, or know it only with a knowledge which soon passes from their memory. Many persons who present unequivocal signs of old syphilis can give a history only of a chancre, and others not even of this. We meet with persons who know of no sore, who give no history or any evidence of syphilis, and yet have had the disease. This fact of imperfect knowledge is well known, but it is so important that I venture to emphasise it with an instance. A gentleman had once, and only once, a slight sore. He showed it to a doctor, who said it was of no importance, touched it with caustic, and in a few days it was well. It was soon almost forgotten, for no after-symptoms occurred to keep it in mind. In a year or so he married a lady in his own station of life. She bore two dead children, and then a living one; the latter soon showed signs of syphilis, and became paralysed and imbecile. Then the wife died from the effects of the same disease. Similar cases, we may hope less tragic, must have been met with by all practitioners—cases in which the transmission of the disease to others is the first proof of its existence. A striking instance is the first case of progressive ophthalmoplegia, in which the nature of the lesion was proved. I suppose that there is no one more skilled in tracing syphilis than Mr. Jonathan Hutchinson, and yet in this case the search, many times renewed, failed to reveal any indication of the disease; there was not even a venereal sore to suggest it; and yet, after the man's death, a child of his was brought to Mr. Hutchinson with interstitial keratitis and notched teeth. I have met with many patients who had signs of the past disease—some unequivocal cicatrix in eye, tongue, throat, or skin—who could give no history of a chancre. But I am able to offer you more definite facts, for which I am indebted to my friend Dr. Radcliffe Crocker. He has been kind enough to ascertain from his case records at University College Hospital the proportion of cases of tertiary syphilitic skin-eruptions in which there was no history of a chancre. He has found fifty-six cases of such eruptions, cases that are consecutive and unselected, and in no less than eleven of these the occurrence of any chancre was unknown. This is a proportion of 20 per cent. It cannot be doubted, moreover, that besides such cases there must be many more who have no late symptoms whatever to reveal the disease.

These facts suggest a question most important in regard to the problem we are considering—the actual frequency of what may be termed *latent* syphilis, in which the manifestations of the disease are either absent or quite insignificant, and receive neither attention nor treatment; so that years afterwards the memory of them is reduced to a vanishing point in the vista of the past. May not such cases be far more frequent than is generally thought—more frequent, indeed, than we can ascertain? Besides the facts I have mentioned, there are others which, if they do not suggest this frequency, at least harmonise with it and are explained by it. Many observers have noticed how often severe late lesions have followed an early stage that was slight or unnoticed. It has, indeed, been more than once suggested that there is an actual alternation in severity between the early and the late effects. Such an alternation would explain the facts, but cases are frequent enough in which both stages are alike severe or slight. May not the frequent apparent alternation be simply due to the great frequency of mild or latent syphilis? Take, again, the fact epitomised in what is termed (abroad more often than in England) Colles' law—the fact that a woman who bears a syphilitic child, although apparently free, is proof against infection, and must therefore have suffered. It is supposed that pregnancy is in some way antagonistic to the activity of the disease; but this assumption is opposed by many facts, and the apparent anomaly may be equally explained by the frequency of latent syphilis.

It is, therefore, certain that the facts we can ascertain will fall short of the real facts, and will fall short of them by a quantity which, because it is unknown, must not therefore be neglected. Whatever the actual amount of the discrepancy, its influence will be the greater the larger the number of cases in which syphilis can be traced. For instance, to take what may be an extreme proportion (but may possibly be less than the truth), let us suppose that syphilis cannot be ascertained in any one quarter of the patients who have suffered from it—that besides the cases in which there is clear evidence of the disease, there are one-third as many more, on an average, in whom we cannot ascertain it after the lapse of years. This would raise the proportion of syphilitics among adult males to about 16 per cent., but it would raise a proportion of 50 per cent. to 70, and of 60 per cent. to 80. To ascertain the mere fact of causation. we may, indeed neglect the discrepancy, but we must recognise at least its existence when we endeavour to estimate the extent of causation.

One last general remark. For the comparisons to be significant, the facts must, as a rule, be specially observed. It is one of the many lessons of scientific history, in no part more conspicuous than medicine, that facts observed without special reference to the question at issue are of very little value for its decision. On the second kind of evidence—that of therapeutics, the influence of drugs on a disease—I must and can be more brief. The considerations are not less important, but they are familiar, at least in the abstract, and we shall have occasion to return to them in discussing the problems of diagnosis. Unfortunately, the limitations to the use of this method are such as to reduce very much its scientific value. The chief conditions that must be secured may be thus enumerated: (1) The effect of the drug must be decided and unequivocal. (2) Its influence must not be obscured by any other change in the measures employed that might cause the improvement observed. (3) The lesion must not be one of which the symptoms tend to spontaneous subsidence. (4) The lesion must not be one that can be influenced by the drug when it is not due to syphilis. (5) Before a negative result can be admitted as evidence that the lesion is not due to syphilis, we must be satisfied that the damage produced is not so great that its manifestations *cannot* speedily subside. These conditions render the process almost useless for our present object. The method is applicable chiefly to chronic lesions, in which the influence of treatment can be clear and decided. Acute lesions, if they are slight, have too great tendency to subside; while, if they are severe, they have effects of prolonged duration.

We may briefly glance at the lesions to which these methods of proof apply. First, there are two important acute inflammations: those of the membranes of the brain and of the substance of the spinal cord. Are these ever due to syphilis? Unfortunately, I can only ask the question, and try to show how to obtain the answer, which I am not able to give. That syphilis causes chronic cerebral meningitis is one of the surest facts of medicine. It seems, however, to be still uncertain whether the disease also causes acute meningitis, such as reaches a considerable degree of intensity in a few days. Analogy suggests that an acute meningitis, like an acute iritis, may be due to syphilis, but this is enough only to make us search for evidence. Morbid anatomy, as we have seen, is not likely to supply an answer. The therapeutic test is of little value on account of its essential limitations, for we dare not secure the absence of other influences, and there is reason to believe that mercury may determine the subsidence of an inflammation that is not syphilitic. I have once known the symptoms of a general meningitis to develop most acutely in a man who had suffered from syphilis, and then slowly pass away under the influence of mercury; but such a case can alone do no more than raise or strengthen a suspicion. It cannot supply the needed proof. Acute meningitis is very rare in adult men, but it does occur when we can exclude syphilis; and hence the question of causation can be decided only by a series of cases. The readiness with which acute meningitis is ascribed to syphilis by some writers is astonishing, or would be astonishing were not the capacity for wonder often already diminished by the process of the diagnosis of the disease. To give one instance: A patient suffered, for a few days only, from pain in one temple, an elevation of temperature of half a degree Fahrenheit, and diminished frequency of the pulse. This was considered to justify the diagnosis—not, indeed, of meningitis, but of a lesion safe in the region of hypothesis, local congestion of the membranes. This assumed lesion was further ascribed to syphilis because the symptoms occurred twenty-five days after—not definite constitutional symptoms, not even after enlargement of the glands, not even after the primary induration was discovered, but twenty-five days after the exposure to infection! After this we scarcely marvel to find that this case is regarded as

affording strong support, indeed part of the proof, of a theory that the early symptoms of syphilis frequently include congestive lesions of internal organs, especially of the nerve centres, which are analogous to the early eruptions on the skin. I think our time may be better occupied than by discussing this theory in detail.

The possible relation of myelitis to syphilis is one of the most difficult problems connected with this subject, and it is one on which definite evidence is specially needed. The term "acute myelitis," even in its narrower sense, includes diseases widely different in their nature and pathological relations, and these relations are still imperfectly known. We can, however, distinguish acute transverse myelitis, subacute disseminated myelitis, and acute poliomyelitis, as fairly well defined forms, which have distinctly different causal relations, and the relation of each of these to syphilis must be separately ascertained. In each, the investigation has still to be made. The fact that special observations are necessary renders it difficult for the evidence to be obtained by any one person. It is certain that not one of these forms is exclusively related to syphilis, and it is not probable that the relation is, in any one of them, so preponderant that the fact could be decided by a small number of observations. For we must depend almost entirely on the evidence of sequence. The limitations to the method of therapeutics are here prohibitory. The course of the symptoms is no more guide to that of the inflammatory process than is the course of a cardiac murmur evidence of the course of the endocarditis to which it was due. If the inflammation of the spinal cord is trifling, the tendency to spontaneous improvement deprives the subsidence of the symptoms of any significance. Moreover, there is some evidence to suggest that the less acute forms may be due to syphilis, and yet not yield to its treatment. In the case of an inflammation, such a statement seems self-contradictory, but in dealing with facts we must lay aside all our preconceptions. I mentioned just now a form of insular myelitis, possibly always syphilitic in origin, and specific in its distribution. (To avoid confusion I may point out that in this form the inflammation is in small islets; in the common form of disseminated inflammation larger scattered tracts or areas are affected.) If this insular myelitis is syphilitic, it does not seem to be distinctly amenable to treatment. In the cases hitherto observed, the patients have died. In some of them, and certainly in my own, anti-syphilitic treatment had no influence on the disease. I have seen several other cases of subacute and subchronic myelitis in syphilitic subjects, in which neither iodide in large doses nor mercury pushed to salivation had any appreciable influence on the lesion, either on its extension in the cord or its intensification in the parts before affected. This seems also to have been true of the remarkable case of caseating inflammation, described by Charcot and Gombault, to which I have already alluded as a lesion pathologically specific. Here, then, we are driven back on sequence for our evidence of causation, and the needful observations, serial and unselected, have yet to be made. The same statement must be made regarding transverse myelitis, the most common variety, recognisable during life without much difficulty. My own experience is suggestive only. I have seen several cases in which the disease followed syphilis; more, I think, than mere coincidence will explain. On the other hand, I have met with no cases of acute poliomyelitis suggesting a syphilitic causation, and the significance of a few cases that have been published as evidence of such causation seems to me open to doubt. We must remember that the subacute form has only lately been distinguished from peripheral neuritis, and the most common cause of peripheral neuritis—alcoholism—is sometimes associated with syphilis as a consequence of mode of life.

Another acute affection of the spinal cord, the mysterious acute ascending paralysis, has also been supposed to be a result of syphilis, partly on the ground of sequence, partly on that of recovery under the influence of mercury. The proportion of published cases in syphilitic subjects is certainly large, and justifies careful investigation. In considering the influence of mercury, we must remember that there is some evidence that other acute toxic states, besides that of syphilis, are modified by mercury. In the course of some investigations made in 1885 at the Brown Institution, Dr. Cash discovered that animals brought under the influence of mercury resist otherwise fatal inoculation with the anthrax bacilli—a remarkable fact, which does not seem to have attracted the attention it deserves.

Regarding the focal sclerosis of the nerve centres, or what may be termed "chronic sclerotic inflammation," I have a little to say. The evidence seems to be against any relation to syphilis of true insular sclerosis. Only future observations, for which we may have long to wait, can determine the question as regards certain other extremely rare forms of diffuse sclerosis. A remarkable case of miliary degeneration of the grey matter of the brain, published by me some years ago, occurred in a syphilitic subject. Many years ago I examined for Dr. Hughlings Jackson a brain of an old syphilitic, which presented a remarkable induration of a large part of the white substance of one hemisphere, without change in tint (the history of this case, unfortunately, we have been unable to trace). Lastly, sclerosis of the cortex in infantile syphilis, as we have already seen, may possibly be sometimes primary, although generally it is the result of inflammation in infarcted areas.

The processes that we have hitherto considered originate either outside the nerve centres themselves, or when within the nerve tissue are essentially interstitial. Of all, therefore, it seems to be true that the primary morbid process is independent of the nerve elements themselves. These elements suffer just as they would from any similar process not syphilitic in nature. It is on these simple processes in the nerve elements, and on these only, that most of the symptoms depend—a fact of the utmost practical importance.

Until lately it was believed that the influence of syphilis was limited to the production of such lesions as we have hitherto considered. But modern observations, led by those of Fournier, have resulted in a considerable amount of evidence that the effects of syphilis are not thus limited, that the disease is followed by lesions of a totally different nature, and is followed by them in a way that admits of no other explanation than that it causes them. These lesions are degenerations of the nerve structures, with such a distribution according to function as can be explained only by assuming that the process begins in the nerve elements themselves. The relation of these "system degenerations" to syphilis was first asserted in the case of tabes and locomotor ataxy, and this disease is still the most conspicuous example around which most of the controversies have turned. The assertion that syphilis causes lesions so totally unlike the known effects of the disease, was sufficiently startling to be received with surprise and suspicion—a suspicion not lessened by the fact that the only evidence of the relation was, and still is, that which depends on numbers for its weight. Various objections were urged. It was said that syphilis could not cause such disease, that cases of true syphilitic lesions had been mistaken for degenerations, and that if tabes were due to syphilis, the lesion must be primarily interstitial, and not a primary nerve degeneration. The common absence of benefit from antiluetic treatment was urged in support of the objections, and the statistical evidence was met by other figures of different significance obtained from existing records. Some of these arguments, however, were seen to be untenable as soon as they were clearly stated. The assertion that syphilis could not cause a lesion different in nature from the effects previously known, was too obviously a transfer to medicine of the method employed by Canute upon the sea shore. The absence of evidence of one kind—that of therapeutics—was manifestly no refutation of a totally different species of proof. The comparison of statistics, moreover, resulted in a curious and instructive episode in the history of medicine. When those observers who had gathered their cases from old records came to make fresh observations on the subject, they found that the two sets did not correspond. They found that the proportion of syphilis yielded by the special observation was much higher, and in more than one instance the special inquiry transformed an opponent into a supporter of the new opinion. It was one more instance of the uselessness of figures based on observations not made with the special question in view.

The proportion of cases of tabes in which syphilis has to be traced by different investigators has varied much—from 90 per cent. down to a proportion that has been held to be not far above the range of accidental association. Instead of detailing to you the various statements that have been made, it may be more instructive to give the figures supplied by a consecutive and unselected series of cases that has come under my own observation. Of 170 cases of characteristic tabes in males, there was evidence of syphilis (in a

few confined to a chancre certainly hard) in 55 per cent. In another 14 per cent. there was a history of a sore only, of unknown nature. In only 31 per cent. could neither be ascertained. Of the 170, 92 were seen in private and 78 were hospital patients. The percentage of syphilis in the private cases was 57, in the hospital patients 52. Probably the difference is due to the more accurate information to be obtained from those who are more likely to notice and remember such diseases. It is remarkable, however, that the proportion between the cases of syphilis and the cases without even a chancre is exactly the same in the two sets as 11 to 6. The difference in the percentage arises from the fact that a history of a sore of unknown nature was almost twice as frequent among the hospital as among the private patients. In either series, the addition to the syphilitics of one quarter of the cases of chancre will give about 60 per cent., and a deduction for mere accidental coincidence would leave at least 55 per cent. of unquestionable causation. But it is certain that to this a large addition must be made for untraceable syphilis. These figures are obtained by placing all doubtful cases on the negative side, including many with a strong presumption of syphilis. If it is true that latent syphilis is common, and if the disease can be proved to be a cause of tabes in more than half the cases, is it not almost certain that a large proportion of the remainder are really due to it? In most of them no other cause could be traced. In not more than 5 per cent. of the whole had there been no exposure to the risk of infection. Although the *method* which discloses syphilis in an exceedingly large proportion of the cases may be open to question, I cannot but think that the observers who describe it in 75 or 80 per cent. are not far from the real truth.

Not only is the relation of syphilis to tabes beyond reasonable doubt, but we are beginning to discern that there are other diseases that stand in a similar though unequal relation to the disease. One other group of degenerations we can, indeed, connect with syphilis as surely and as extensively as tabes, the degenerative ocular palsies, which, often associated with tabes, occur also alone. There is strong evidence of a similar relation in simple atrophy of the optic nerve. Among the motor palsies, one of the most important to the physician, although the least important to the patient, is the isolated loss of the light-reflex of the iris, with which the name of Argyll-Robertson is connected. I have notes of only twenty-two cases in which this symptom existed apart from other degenerative affections of the nervous system, but I believe that it is much less rare than this number might suggest. It is seldom looked for unless other symptoms suggest degenerative disease. Of these twenty-two cases, syphilis was certain in twelve, and highly probable in three others, while two more had a history of a venereal sore. In six cases there was no history or evidence of either syphilis or a chancre; nevertheless, two of them had had an attack of sudden hemiplegia in early adult life, without any indication of a cause of embolism—an event that always affords ground for suspecting syphilis. From these facts we may feel confident that syphilis existed in two-thirds of the cases, and we may suspect that it existed in three-quarters. One of the cases was a young girl, the subject of inherited syphilis, and another case was this girl's mother. The relation of this symptom to syphilis makes it one of great practical value. It proves that a degenerative process is at work in the nervous system, and it raises a strong presumption that this process is the result of syphilis. It is true the dependence of the symptom on central degeneration has not been proved by observation, but the evidence of this dependence is as strong as it can be short of actual observation.

The more extensive palsies, external and internal, to which the term "ophthalmoplegia" has been applied, are much more rare. They occur in syphilitic subjects in association with tabes, and also alone, as was clearly proved by Mr. Jonathan Hutchinson. In the case of external ophthalmoplegia in which I made an examination of the nerve centres, preceding syphilis was certain, and the lesion was as pure a nerve degeneration as can be conceived. But these diseases, like tabes, are not exclusively related to syphilis; they certainly occur now and then in persons in whom syphilis can be excluded. This evidence seems to leave no room for doubt. It receives, moreover, a strong emphasis from the remarkable fact that nerve degenerations, such as succeed acquired syphilis in the adult, are met with also in young persons who are the subjects of the inherited disease. Such cases are indeed rare, and their rarity may be due less to any difference in the influence of the disease than to the greater vital stability possessed by younger tissues. I have met with two or three examples, and their interest may justify a brief mention of them. One case was a lad who in infancy and early childhood suffered much from various manifestations of syphilis, including slight hemiplegia and choroiditis. At the age of seventeen the symptoms of locomotor ataxy were distinct. There was unsteadiness in standing and walking; there had been lightning pains, and no trace of the knee jerk could be obtained. It was difficult to ascertain when the symptoms commenced; the unsteadiness had only attracted attention during a year or so. A second case was that of a girl aged fifteen (seen through the courtesy of Mr. Nettleship). She had typical teeth, and traces of characteristic inflammation in the cornea and choroid. The left knee jerk was absolutely lost, and only a very slight movement could be obtained on the right side. There was no ataxy or anæsthesia. In each iris the light-reflex was quite absent, although there was full action to accommodation, and vision in one eye was normal.

Another malady of great importance in regard to which this question has arisen is general paralysis of the insane. The disease is probably to be classed with primary nerve degenerations; but in many cases, it would seem, the secondary changes attain a very considerable independence of degree. Its close alliance with tabes is shown by the conditions of age and sex in which it occurs, by the degenerative ocular palsies common to the two, and by their actual combination in many instances. This would lead us to expect a similar relation to syphilis. The scientific proof, however, is beset with many difficulties, and the statistics obtained have varied greatly. No less than 75 per cent. of certain syphilis is described by Mendel in 146 cases. One serious difficulty arises from the great variations presented by the disease. Typical cases form a minority of those that may be classed under the generic name, and both the typical and untypical forms certainly may occur independently of syphilis. I believe, however, that syphilis can be traced in a large proportion of each distinguishable variety, although I am not able to offer you any definite figures. Fournier has pointed out how often symptoms resembling more or less closely those of general paralysis seem to result from organic syphilitic lesions of the brain. I believe that the explanation of this is to be found less in the fact that the organic disease causes these symptoms than in the profound degenerative tendency which so often results from syphilis. This tendency may accompany the organic lesion, and is perhaps sometimes actually excited by it. I have occasionally observed that degenerative symptoms, mental and articulatory, may distinctly come on soon *after* a sudden organic syphilitic lesion, and may subsequently lessen and even pass away.

Another central degeneration that is probably an occasional consequence of syphilis is the chronic muscular atrophy due to degeneration of the motor cells, with or without the signs of lateral sclerosis. Great care is necessary to avoid the error of mistaking for this the atrophy that results from syphilitic pachymeningitis. In several cases that I have seen, the true degenerative affection has been an early sequel of syphilis, and no other cause could be traced. Similar cases have been published by others, but they do no more than *suggest* the relation, although they suggest it strongly, and my own notes do not enable me to offer any statistical evidence on the question. The difficulty of the investigation is increased by the large number of cases of senile character. The exclusion of these would simplify, without hindering, the search for evidence. The investigation should thus be restricted to cases commencing between twenty-five and fifty, the standard being limited to the same age.

The other common degenerative diseases of the spinal cord are associated with syphilis only in a proportion so small as to raise a doubt whether there is any causal relation between the two. Nevertheless, they occasionally follow syphilis when no other cause can be traced. This is especially true of primary lateral sclerosis that probably often underlies spastic paralysis. Ataxic paraplegia and combined lateral and posterior sclerosis seem to be very seldom preceded by syphilis.

It must be admitted that the relation of these degenerative diseases to syphilis is a startling extension of our knowledge of its influence. And yet, perhaps, our surprise

is not altogether justified. Other facts exist which, if they do not lessen the marvel, at least may prepare us for it. We are familiar with the influence of chemical poisons on certain parts of the nervous system, with the way in which atropine, curara, digitalis, and strychnia pick out for isolated derangement certain nerve elements, leaving unaffected adjacent structures. This must be the result not only of the nature of the poison, but also of the nature of the nerve elements influenced, through which they, and they only, have a responsive susceptibility. That an organised virus may exert a similar elective influence, the symptoms of hydrophobia clearly show, and those of whooping-cough at least suggest. The phenomena and pathology of diphtheritic paralysis demonstrate that an acute degeneration of certain nerve elements may also be the effect of an organic virus. We may note, also, that the effects of the poison of diphtheria sometimes so closely resemble those of the poison of syphilis that cases of diphtheritic paralysis have been repeatedly mistaken for tabes, and we have seen that syphilis has, like diphtheria, a special tendency to derange an intra-ocular muscle. Further, in the fact that the palsy is a sequel rather than a concomitant of diphtheria we have a fact not without significance, a significance that is not destroyed by the difference of interval in the cases, since the difference of interval is not proportionately greater than is the difference in duration of the primary maladies. Diphtheria runs its course in a few days, and its effects on the nervous system are developed in weeks or months. Syphilis lasts, in the stage of a blood disease at least, for months, and perhaps for much longer, and its effects on the nervous system are developed only in the course of years. But there is possibly even more than an analogy between the effects of the two diseases. I have seen a few cases in which there was evidence of a persistent and even a progressive lesion of the spinal cord after diphtheria, and I lately saw a woman in whom true primary atrophy of the optic nerves, with partial external ophthalmoplegia, was a distinct sequel to a true diphtheritic paralysis. Hence we may hope that the discovery of the mechanism by which diphtheria affects the nervous system will take us a step nearer to the elucidation of these mysterious sequelæ of syphilis.

It may, I believe, be regarded as a general law, and a law of much importance in practical diagnosis, that the isolated impairment of nerve structures that have a certain function, when acute indicates a toxic influence, when chronic a degenerative process. It is instructive to note that these two mechanisms are not entirely dissociated—that the degenerative process may be a late result of a toxic agent.

The problems we have last considered have an interest which is at present, alas, purely scientific. It is a strange anomaly, this scourge of the sinister side of civilised life. Its direct effects we can control more than those of any other malady of like nature, and yet both the essential element of the disease and its remote effects seem alike beyond our reach. But the knowledge that is not power now may be power in the future. When the specific organism has been identified and isolated—when it has yielded the secret of its life-history—then we may look for means, if not of destroying it, at least of modifying its processes and effects, and of modifying them, not only in the experimenter's flask, but within the human body. Until this can be accomplished, the light of research does but reveal, in vaster range and more complete detail, the grim features of the malady. Still the light is welcome. We see how far the morbid grasp of the disease extends into regions believed to be beyond its reach. We see how long its consequences endure—living on their own life after the disease itself has ceased to be a power for evil; and we see also how much more vast, than once was thought, will be the saving influence of prevention or of cure.

SUPPLY OF ANATOMICAL SUBJECTS IN BRUSSELS.—Considerable difficulty having hitherto been experienced in Brussels in obtaining sufficient subjects for pathological and anatomical teaching, the administrative council of the hospitals has decided to allow all bodies dying in them to be utilised both in the post-mortem room and for the purposes of dissection, except where the immediate relatives make a demand for a funeral. Hitherto the claims of distant relatives, and even apparently of friends, have been permitted to interfere with the utilisation of the bodies for teaching purposes.

Clinical Lecture
ON
FRACTURES OF THE UPPER EXTREMITY.

Delivered in University College Hospital.

BY CHRISTOPHER HEATH,
HOLME PROFESSOR OF CLINICAL SURGERY, UNIVERSITY COLLEGE, LONDON.

GENTLEMEN,—I am going to speak to-day about fractures of the upper extremity for this reason. Fractures of the lower extremity are constantly in the wards, and therefore I have the opportunity of teaching practically upon them; but fractures of the upper extremity, as a rule, are not admitted into the wards, and it may happen that you do not see them; they are necessarily treated at the time of the accident in the surgery by the house surgeon, and the surgeons of the hospital do not see the cases at all. I am desirous, therefore, that you should hear my views upon the treatment of this particular class of cases, and I am the more anxious because you will remember that the other day we had here from another hospital a boy who had a badly united forearm. I brought him into the theatre on a Wednesday, put the bones as straight as I could, and in your presence applied the necessary splints and bandages; and I want to give you a few hints to-day as to the treatment of fractures of the upper extremity in order that you may avoid similar errors.

In the diagnosis of fractures generally, I would put the order of symptoms thus:—First, *deformity*, for in the great majority of fractures of the upper extremity there is a deformity which is tolerably obvious. Next I would put *loss of power*, for the patient has lost the use of his limb, and you can see that he comes to you carrying his broken limb in the easiest position, and complaining if it is in the least jarred, or shaken, or touched. Next, therefore, to the deformity and loss of power I would put *pain*. When you have these three symptoms, you may be tolerably sure that you have a fracture to deal with. Still, you cannot be quite sure till you come to manipulate slightly, and as soon as you do manipulate, in the great majority of cases you will find at once the well-marked symptom of *crepitus;* but put crepitus last, if you please, not first, because it is only to be ascertained by the surgeon when he comes to manipulate the part, and he ought to have made up his mind pretty well as regards the nature of the case without touching it at all. Where a fracture is obvious, it is absurd to be pulling it about with the view of confirming a diagnosis which you have at once made for you. Why do you want to pull about the patient and put him to pain till you are prepared to set the limb and put it up? Of course you may put it into shape then and there, but you have no splints ready, and you must let it go, and it immediately goes out of shape, and you put yourself to the trouble and the patient to the pain of a second reduction. You should therefore wait till the splints are ready, and then at once reduce and put up your fracture. With regard to that, I am sorry to say that I am quite sure, from the badly set fractures one sees from time to time, that surgeons do not always recognise the necessity of *setting* fractures. They are too apt to clap the splints on anyhow, and to support the limb in the position in which it is. The position may be a right one or it may be a wrong one, and if the parts are deformed it is your business to reduce the deformity before you put on the splints, and then to put the limb up in the best possible position.

After these few preliminary remarks, let me say, with regard to the treatment of fractures generally, that if there is one thing more important than another, it is that the limb shall not be unduly constricted. Therefore you will find that all modern books lay down the rule that no bandage should be put next the limb. I am the more particular in saying this because in books of comparatively recent date there is still the ridiculous advice to put a bandage round the limb under the splints. Now if you do that, if you bandage the limb beneath the splints, what must happen? Why, the limb is likely to swell; you have got it constricted by the bandage, and the result is that you sometimes unfortunately

get gangrene of the limb produced. Such an accident as that is most disastrous to all parties—in the first place to the patient's limb, and in the second place to the surgeon's reputation, because naturally he would be blamed for such an untoward result. The case is very different with regard to supporting a bruised limb properly by applying a certain amount of elastic pressure. The late Mr. Gamgee, of Birmingham, the inventor of the extremely useful elastic tissue which I strongly recommend to your notice—the Gamgee tissue—was very strong indeed about the necessity of applying judicious pressure to bruised parts, and he was perfectly right. If you have a bruised limb, and you raise it vertically, the blood rushes out of it, as you see constantly in cases of amputation when you raise the limb before putting on Esmarch's cord; the result is that you very much diminish congestion, and, of course, congestion is the first stage of inflammation. How are you to apply this judicious support and pressure in that way without undue constriction? It is to be done by padding your splint thoroughly, and then by applying your bandage over the splint. If you do that with any amount of judicious care, the result can only be satisfactory.

Before going further, let me say a word with regard to splints. We appear in the hospital to be in the habit, for economy's sake, of cutting splints as they are wanted, from a quarter-inch deal board. Now that is very objectionable, and I hope we shall stop the practice; because, if you have a perfectly flat board, however carefully you may pad it, when you come to apply it to a convex surface—and you will remember that a limb is always more or less convex—it stands to reason that there must be a tendency to produce undue pressure upon the limb. And there is no necessity to adopt this plan, because almost as cheap, and certainly a great deal better splint is the split boarding known as Gooch's splint, like that which I hold in my hand. Or, still better, you can have it cut up ready for you in a series of splints, called by the instrument makers "lined splints." The great advantage in them is that you have a certain amount of giving of the splint. The wood being divided and bending upon the lining of leather, the result is that it can be applied readily to the convexity of the limb instead of being a flat board, which presses unduly upon the part. You may have all sorts and varieties of splints. Here is one which I use a great deal in private. It is called the Crimean splint, and it is very convenient because it is already padded. As you see, there are three pieces of wood sewn upon the pad; or, if you prefer it, you may have three pieces of metal. These are reasonable and comfortable splints because they yield to a certain extent in the transverse direction, and at the same time they are rigid in the length of the splint. Then there are splints which are moulded with certain objects. There are, for instance, special splints known as Carr's splints, to which I will afterwards allude more particularly. There is also a useful kind of splint for certain cases—for example, splints which are moulded to fit the hand. Bear in mind, however, that every splint must be padded. It has happened to me before now, I am sorry to say, to take a splint from an arm with no pad whatever. It is in padding splints that the Gamgee tissue comes in so usefully; you can take a piece of the tissue and cut it to fit any splint you like. If one layer is not sufficient, you can make it double or treble at certain points where you want to have special protection to the bone.

Now let me run through the varieties of fractures and point out to you the methods I recommend. I can only give you my own individual views, and I am aware that they are not quite the same as those of some other surgeons, but you will take them for what they are worth.

Take the case of a man who has a crushed finger. The accident is sufficiently obvious. The great drawback is that, unfortunately, in most cases of crushed finger the injury is compound. Still, supposing you have a simple fracture of a phalanx, what can be simpler than to put a narrow piece of wood of the kind I have mentioned wrapped in cotton wool or some Gamgee tissue and carry it into the palm of the hand, and then with a strip of plaster bind it round, keeping the finger straight. But, supposing you have a number of fingers fractured, it is not quite so easy. Then you will find it advantageous to have a splint, which you can make for yourself if necessary, cut with divisions in it for the five fingers. Unless you have each finger separately bandaged in this way, they are apt to be jammed together, and you cannot be sure that you will maintain each finger straight. Taking the case of the metacarpal bone, I know no splint so convenient as the moulded hand-splint reaching up to the first phalanges. Here you have all the metacarpal bones well supported, and there is no difficulty whatever in the treatment. There is this great advantage, too, in the splint, that the fingers are able to be left out; therefore they do not get stiff, which is a very important thing. Before leaving the hand, let me remind you that the metacarpal bone of the thumb is not the same as the metacarpal bone of the fingers. The metacarpal bones of the fingers, you will remember, have their epiphyses at the distal ends; the metacarpal bone of the thumb, as regards development, is a phalanx, and therefore the epiphysis is at the base. It happens in the case of children every now and then that there is a separation of the epiphysis of a metacarpal bone, and in the thumb it will be at the base; in the fingers it will be at the head.

Now to come to the forearm; and I may as well point out what the development of the forearm is, as we have a specimen here. Let me remind you that we have an epiphysis at the lower end of the radius, which includes the whole of the articular end. Then we have a very much smaller epiphysis at the upper end or the head of the radius, which includes only just the articular surface. The large epiphysis does not thoroughly unite with the shaft of the radius until the age of eighteen or twenty, so that up to that age you may readily get a separation of the lower epiphysis of the radius, and that no doubt is a form of accident which is much more common than is generally supposed in young people. When you hear of what is termed Colles' fracture occurring in a young person, you may be sure that it is not Colles' fracture at all, but a separation or fracture of the lower epiphysis. The same thing applies to the so-called dislocation of the hand at the wrist. It is an uncommon accident, but where it is supposed to occur in a young person it is generally a separation of the lower epiphysis of the radius. With regard to the ulna, the development is not so important surgically. Here we have an epiphysis at the upper end, and sometimes you find that the olecranon is still separate. There is also a lower epiphysis, exceedingly small, including the styloid process.

Coming to common fractures of the forearm, I suppose one of the commonest is Colles' fracture. I hold in my hand a cast which shows it very well. There is the abduction of the hand and the prominence of the lower end of the ulna, but sometimes there is a much more considerable deformity. You see there is here no displacement of the lower fragment on the back; it is more of a curve, and that is often the case. Here is a capital dried specimen in which you have the lower fragment of the radius carried backwards quite upon the upper surface of the shaft of the radius, and you see it carrying with it the hand. The fragment is carried so completely away from the shaft of the bone that we have two projections, the lower one which is due to the fragment, and the upper which is due to the shaft of the radius. We have also some abduction, but not so much as we often get; consequently you see here the styloid process only a little more prominent than it should be. Colles' fractures vary considerably; they are very commonly comminuted, and occasionally they are impacted—I should say more often than people think. When there is very considerable deformity, but you find no crepitus or very obscure crepitus, you may make up your mind that it is an impacted fracture. As a rule impacted fractures are best let alone, and anybody, for instance, who breaks up an impacted fracture of the neck of the femur is a bad surgeon. But Colles' fracture of the radius is an exception to the rule; it is the place in which one is justified in breaking up the impacted fracture and restoring the contour of the limb. The way to do it is this: you manipulate the wrist rather forcibly (sometimes it is wise to put the patient under chloroform first), and you over-extend the hand so as to unlock the fragments, which should be done with care. Having unlocked the fragments, you are then able to draw the hand down and bring the bone into a very fair position. I quite allow, however, that there are impacted fractures of the radius which you cannot unlock, and therefore you may be obliged to let the patient go with the impaction and the consequent deformity left as they were.

Supposing you can unlock the fragments and get the bones into a tolerably good position, what is the best way of treating them? In many hospitals Colles fracture is treated simply by two straight splints, and the hand is put up a little adducted. It is not quite a satisfactory method,

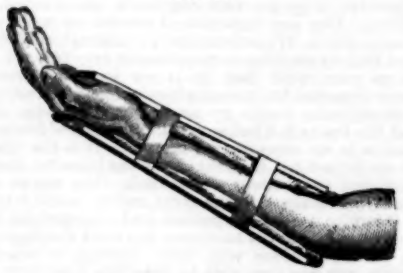
and a much better plan is to use the old-fashioned pistol splint, the hand being first adducted and fixed in position, and then the splint brought up to be attached to the forearm. But what I strongly recommend you to use, if you can get them—and they are not at all expensive,—are these Carr's splints (Fig. 1).[1] Carr's splint, which is an American invention, has the great advantage that it has, in the first place, a thickened portion against which the radius rests, and then that it has an oblique bar which the fingers grasp, and on which they can be moved to a certain extent. The bandage is put on so as to retain the fingers for the first twenty-four hours and prevent their movement; but at the end of that time you can take off a piece of the bandage as far as it binds down the fingers, trusting to the patient

FIG. 1.

holding on sufficiently to the bar and moving the fingers from time to time, so as to prevent the gluing together of the tendons, which is so apt to take place. If you see Colles' fracture treated in the ordinary way, patients are perhaps three months or longer before they really get the use of the hand; but if you put on a Carr's splint, at the end of a month they can move their fingers quite comfortably. The Carr's splint has a straight splint which goes on the back of the forearm; but it is not essential, and I seldom use it.

Now let us come to the shafts of the two bones, and consider what is the best position in which the limb should be put up. When we have a forearm in supination we have the two bones parallel to one another. I do not say anything about the interosseous space, because that is a matter of indifference, but when you are setting a fracture of the forearm the bones should be parallel. Now let us consider how we may have them parallel, and then how it will be most convenient for the patient afterwards to carry his arm. I will take a couple of Crimean splints, which are very convenient, and put the arm of the patient in supination. But how long should these splints be? There we come at once to an important question. I am sorry every now and then to see patients walking about, who have evidently been treated at some hospital, with splints coming down to the tips of their fingers. I know it is unnecessary, because I am sure it is a case of simple fracture, and I know what will happen: the patients will have very stiff fingers for many weeks. What you want is to keep the joint next beyond the fracture stiff and quiet; as long as you do that you may let the other joints alone with advantage. Therefore, when you select your splints for a fracture of the forearm, you ought to make them come

FIG. 2.



down sufficiently far to keep the wrist joint quiet; but the less you interfere with the metacarpals and the phalanges the better for the patient. We have here a patient who is supposed to have a fracture of both bones of the forearm. I now place his forearm in supination upon the longer of the two splints, manipulate the radius and ulna, and endeavour as far as I can to get the bones parallel to one another. I then apply the shorter splint to the front of the forearm. It must not be too long, for you want it long enough to come well up the forearm, but at the same time not to prevent the patient bending the elbow. Here, then, we have two bones parallel to one another. I grip the two splints firmly together and turn the forearm midway between pronation and supination, since that is the way you want eventually to get it; but I am sure you do it much better in the splints than out of them. Having got the hand midway between pronation and supination—i.e., with the thumb upwards—I advise that there should be a strip of plaster applied above and below; lastly, the forearm is bandaged, and the patient is ready to go away with it in a sling. (Fig. 2.)

I find on examination nights that gentlemen are sometimes not at all clear as to the different kinds of sling. There is the triangular sling, which is the best for the forearm; and there is the cravat sling, which is the best for the hand. If you have a man with his forearm in splints, what you want is a triangular sling, and you can fold an ordinary silk handkerchief in the form of a triangle for the purpose. The great secret to remember is that the straight edge or base of the triangle goes in front. (Fig. 3.) If you fix that in your memory you will never be in any doubt as to how to put a sling on; and in these days of ambulance lectures some of you gentlemen may get your eyes wiped severely by some young lady, who will know how to put a sling on, and show you if you do not.

FIG. 3.

If you have a better class of patients to deal with who can afford to have a proper leather sling, you can get one easily enough at the instrument maker's. The curious thing is that they do not always know how to put it on, but simply hang it round the patient's neck. The proper way is this: Instead of hooking the sling round the neck, you undo the strap, and, having laid the arm in the sling, you carry the padded strap over the opposite shoulder and across the back, bringing it through the axilla of the affected side. It makes all the difference in the comfort of the patient, for you can easily conceive what it is to have a sling constantly over the nape of the neck for twelve or thirteen hours at a time.

(To be concluded.)

[1] The illustrations are taken from the author's "Minor Surgery," by permission of Messrs. Churchill.

CLINICAL NOTES ON DIPHTHERIA.

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THE cases from which the following notes are taken have all been directly under my own care, either in the wards of the West London Hospital or in the ordinary course of practice. They represent all the cases of diphtheria coming under my care during the past five years, and are taken seriatim without selection, excepting that I have excluded cases of tonsillitis in which, although the secretion may have appeared membranous, it was limited to the tonsil, unless, in addition to the tonsillar lesion, other symptoms, such as albuminuria or subsequent paralysis, determined the specific nature of the attack. That a simple tonsillitis may in some cases be the exponent of the specific contagium of diphtheria I have not the slightest doubt; indeed, some of the cases which follow are proof positive of such being the case. But, on the other hand, I am far from admitting as diphtheria every case commencing as a follicular tonsillitis, with independent centres of inflamatory action, in which subsequent coalescence of spots produced a membranous appearance (Jacobi). I have seen both the tonsils covered with a soft, creamy membrane, and felt convinced that the patient was suffering from catarrhal inflammation. On the other hand, a merely reddened tonsil has pointed

definitely to diphtheria. In many cases we gain more help from the environment of the patient and the natural history of the attack than from the anatomical or histological appearance of the lesion.

Space will not permit more than a brief *résumé* of the leading features of each case; full details will be found in the clinical records filed at the West London Hospital. Treatment in every case was based on the same principle; naturally it would vary somewhat in each individual case, but such necessary variations are not of sufficient moment to warrant a detailed description. In no instance was caustic application applied to the throat, the remedy used locally being of a soothing character, a solution of glycerirum boracis being invariably made use of. The mouth wash was generally used hot, and repeated constantly every hour at the least. A personal experience of diphtheria enables me to speak strongly of the comfort gained by using hot gargles. In my own case they were incomparably more comforting than ice, and many patients have expressed the same opinion. The more intense the inflammatory action the greater the good derived from hot applications. With such local treatment I have frequently seen the membrane melt rapidly away, the patient speaking of the gargle as grateful to the inflamed throat. In the case of young children who cannot gargle and cannot use a mouth wash properly, I order a powder compound of equal parts of borax and sugar, a few grains being placed in the mouth every hour; or a drop or two of the glycerirum boracis can be used in place of the powder. Children rarely dislike such remedies. I have never attempted to forcibly paint the throats of children; indeed, beyond the first examination for purposes of diagnosis, I have intentionally left the throat alone. If children are not frightened by constant forcible and painful examination, they will generally open the mouth sufficiently for all practical purposes. I have always feared (whether rightly or wrongly I cannot say) auto-infection. By auto-infection I mean laryngeal infection. If such an event be possible, nothing would appear more likely to promote it than the character of the child's cry. There is a prolonged holding of breath, and then follows a rapid, powerful inspiratory effort sufficient to dislodge particles of membrane or discharge and implant them in the larynx or bronchi. At any rate, success has followed the treatment suggested above, as in no instance has laryngeal implication followed upon the ordinary diphtheritic deposit on tonsil or other soft parts of the throat. Stimulants have been freely given, and in those cases where cardiac debility was present they were used in what some might think extreme doses. I have given a child aged four half an ounce of brandy as an injection every three or four hours, and supplemented this amount of alcohol with three ounces of port wine. These remedies caused no inconvenience, and the little patient improved rapidly under their use. But the remedy above all others demanding our attention is an abundant supply of pure air. I believe there is no disease in our nosology which calls more loudly for light and air than does diphtheria. I cannot but think that the frightful mortality existing among cases treated in our hospitals is largely due to the want of properly constructed isolation wards. Many of our hospitals have no isolation ward at all; in some they are wretched, ill-lighted small rooms. A case of diphtheria demands the best ward, not the worst. At the West London Hospital the isolation ward is a large airy room, detached from the main building, capitally lighted, with abundant ventilation. The ward contains 10,000 cubic feet, and is rarely occupied by more than two patients. Formerly a small dark room was used in the basement, and I am confident that the mortality has largely diminished since the new building has been made use of. The cases are as follows.

1. A lady, seen by me in November, 1883. The tonsils and palate were covered with membrane. Two days later four children were attacked with sore throat, one only having membrane. All had glandular enlargement, with fever. In no case was albumen present. The outbreak occurred in a large country house. Nine persons in all suffered. The house was built in two wings, east and west. The east wing contained the children's rooms, and the waste-pipe from the bath attached to the nursery was found running untrapped into the soil-pipe. Diphtheria had been very prevalent in the neighbourhood. It was possible to remove all the sick into a part of the house uncontaminated with sewer gas. A good recovery was made in each case. This outbreak was interesting and instructive; it showed conclusively how the specific poison of diphtheria might affect individuals with different degrees of intensity. Two throats were found covered with membrane. Two of the children had no sore throat, but swollen glands, and a slight rise of temperature.

2. A child, aged eleven, first seen by me on May 25th, 1883. The child had been poorly for two days, and was thought to have taken cold. On the third day a slight rash was observed on the chest, and I was asked to see the patient. The rash was erythematous. Temperature 102·5°; pulse 120. The tonsils were swollen and painful, and injected with small isolated points of pseudo-membrane. The glands at the angle of the jaw were enlarged and tender. The same evening the temperature was 103°. The rash had all but disappeared. The right tonsil was free from membrane; the left had the same appearance as in the morning. The following day the temperature was normal. There was no trace of membrane on either tonsil; no albumen. The child seemed to be well. On the evening of this day another child, aged three, was fretful and feverish, the temperature being 102°. There was much swelling of glands, the parotids being also swollen. In fact, the appearance simulated an attack of mumps. There was no sore throat. It was carefully examined, and no trace of inflammation or membrane could be detected. The following morning a third child was taken ill. Here, as in the last case, the prominent symptom was the swollen parotids and glands at the angle of the jaw. Temperature raised; tonsils and fauces slightly injected and sore. On the same day a fourth child fell ill with fever and swollen glands. The glands in this case were enlarged two days before the trouble was referred to the throat. On the third day of illness membrane appeared on one tonsil. It quickly spread, and during the following five days appeared to implicate the tonsils, soft and hard palate, walls of pharynx, and nasal cavities. As the child lay in bed, a sanious discharge trickled from the nares. The chief complaint was of pain in the swollen glands. The child was extremely fretful and irritable. It was impossible, excepting with force, to carefully examine the throat. On the fifth day of illness, Sir William Gull saw the little patient with me. He gave but slight hope of recovery, and stated that he did not remember ever having seen such a copious deposition of membrane. Powdered borax and sugar was used constantly as an application to the mouth, and stimulants were freely given. The child made a perfect recovery, there being but slight nerve trouble. Food was returned through the nose on three occasions. There was a trace of albumen in the urine. This outbreak was traced to direct infection from one of the under servants, a kitchen maid, who, I ascertained, had been suffering from a "slight" sore throat for two or three days. When seen by me the girl was performing all her household duties, among which was taking up the nursery meals. She declared that she felt perfectly well, her throat being at the time almost completely covered with membrane. In this outbreak, as in the last, it was interesting to note the different effects of the poison. The first case, if seen without the other, would certainly have been looked upon as but catarrhal tonsillitis. The illness simulated this disease as closely as the second did an ordinary attack of mumps. All patients were under favourable circumstances for recovery, the house, standing high, had been drained under the supervision of one of our leading sanitary engineers, and was without flaw.

3. G. G——, a boy aged twelve. Admitted into the West London Hospital on June 15th, 1885; discharged well on Sept. 6th following. On admission he had a patch of membrane on the left tonsil extending to the soft palate. Both tonsils much inflamed and swollen; glands of neck swollen; temperature 101°; no albumen. Three days later all membrane had disappeared. On the sixth day there was a fresh deposit of membrane, more copious than the first; the urine now contains a large quantity of albumen (one-half). On the sixteenth day the throat was normal; albumen less; general conditions satisfactory. On the twenty-seventh day he vomited, and fluids were returned through the nostrils. Three days later the lower limbs were noted as being weak, with diminished reflex action. Within a week the legs were completely paralysed and the reflexes absent. On July 31st, being seven weeks after admission, Dr. Bailey, the resident house physician, made the following note: "Breathing appears to be carried on independently of the intercostals. In inspiration the dia-

phragm is used, whilst expiration is carried on by the abdominal muscles." Improvement seemed to date from the following day, and a good recovery was made. Stimulants were used very freely, and during the period of stomach irritability his strength was supported by nutrient enemata containing brandy.

4. M. P——, aged eighteen. Admitted into the hospital on July 6th, 1885; discharged well on the 25th of the same month. The attack was preceded by three days' illness. There were rigors and sore throat. On admission, patches of membrane were present on the tonsils, uvula, and soft palate; no albumen; reflexes normal. The attack was followed by great muscular weakness without definite paralysis.

5. G. E——, a child. Admitted on Aug. 4th, 1885; discharged well on the 20th. Deposit of membrane on the tonsils and soft palate. Glands of neck enlarged. Albumen present. No paralysis.

6. F. P——, aged seven. Admitted on Aug. 4th; discharged well on the 20th. There was a large deposit of membrane on the tonsils and soft palate.

7. E. G——, aged twenty-two. Admitted on Aug. 28th, 1885; discharged well on Sept. 17th. There was a large deposit of membrane on the tonsils, uvula, and soft palate. Suppuration of tonsils. Albumen present. Glands enlarged. No paralysis.

8. A. C——, a gentleman, aged thirty, seen on July 14th, 1886. He came for advice on account of sore throat and general weakness. Had been staying in a country house where two other persons had been ill with sore throats with white patches. The patient was very feeble. The soft parts of the throat were much swollen and œdematous. The throat was covered with thin shreddy membrane. Albumen present. The two following days this patient was dangerously ill, the principal symptoms being extreme weakness and great swelling of soft parts. There was at no time much membrane. He was able to take large quantities of stimulants, and made a good recovery, uncomplicated with paralysis.

9. A case seen by me in consultation with Mr. Rickard Lloyd, of West Kensington, an interesting point being the age of the patient, who was eighty-three. At the time of my visit he was more or less unconscious. The tonsils and palate were covered with thick membrane. He passed all his evacuations under him. There was no albumen. Mr. Lloyd kept the mouth and throat constantly washed with a solution of glycerium boracis, and to his constant care and energy the patient owes his recovery.

10. A. N——, aged twenty-two. Admitted into the hospital on Jan. 8th, 1887; discharged well on the 20th. This patient came from a house where two children were lying dead from diphtheria. The throat was thickly covered with membrane, and the glands were much enlarged. No albumen or paralysis.

11. G. B——, aged five. Admitted on Feb. 17th, 1887; discharged well on the 27th. Membrane limited to left tonsil; a small portion of this tonsil subsequently sloughed. No albumen or paralysis.

12. A. H——, aged seven. Admitted on Feb. 26th, 1887; discharged well on March 8th. Membrane covered the soft palate, tonsils, uvula, and posterior wall of pharynx. No albumen or paralysis.

13. A. W——, aged thirty-two. Admitted on March 14th, 1887; discharged well on the 21st. The membrane principally affected the pharynx and nares, from which there was much sanious discharge. The glands were enlarged and painful. No albumen or paralysis. The nasal douche of borax and warm water was effectual in washing away membrane.

14. A. H——, aged fourteen. Admitted on March 18th, 1887; discharged well on April 17th. A very severe case. Throat coated with membrane; tonsils swollen and painful. Subsequently portions sloughed. Albumen present. Reflexes normal; no paralysis.

15. E. D——, aged four. Admitted on March 29th, 1887; discharged well on April 13th. Abundant membrane on both tonsils and on pharynx. No albumen. Stated to have had a previous attack of diphtheria.

16. A. H——, aged eighteen. Admitted on March 28th, 1887; discharged well on April 13th. Membrane present on both tonsils and uvula. Albumen present. Complete absence of knee jerk. In this case the initial stage suggested tonsillitis, but the presence of membrane on the uvula and albuminous urine pronounced the attack to be diphtheria.

17. E. G——, aged thirty. Admitted on May 10th, 1887; discharged well on May 20th. Membrane on pharynx, uvula, and tonsils. Glands much enlarged. No albumen. Extreme muscular weakness, but no definite paralysis.

18. K. D——, aged nineteen, a domestic servant. Admitted on April 26th, 1887; discharged well on June 17th. This case presented much difficulty in respect to diagnosis. She was admitted for general debility and anæmia. On examination, a muco-purulent discharge was seen adhering to the posterior wall of the pharynx. It could easily be removed, and when floated in water presented the ordinary appearance of muco-pus, such as is often found adhering to the pharynx in catarrh. There was no history of sore throat. The glands were not enlarged. Two days after admission a fresh crop of membrane occurred on the tonsils, and there was a small amount of albumen in the urine, the principal symptom being still want of power. On the twelfth day fluid regurgitated through the nose, and the voice assumed a nasal character. The knee jerk was slightly exaggerated. The temperature throughout the attack was subnormal.

19. A nurse. Admitted on April 7th; discharged on April 17th. She had been nursing a fatal case of diphtheria. Both tonsils covered with membrane. No albumen. Great muscular weakness followed the illness.

20. E. G——, aged twenty. Admitted on May 10th, 1887; discharged well on May 20th. Copious deposit of membrane on both tonsils, uvula, pharynx, and soft palate. No albumen. Glands enlarged and painful.

21. E. D——, aged twenty-five. Admitted on May 19th, 1887; discharged on June 2nd. The patient looked very ill. Glands much swollen and painful. Tonsils, palate, and pharynx covered with membrane, the tonsils being inflamed and enlarged. Temperature 103°. Albumen present. On the following day inspiration was slightly noisy and the voice hoarse. A warm steam spray with solution of borax gave relief, so much so as to encourage perseverance in its use. Mr. Taylor, the house physician, was so satisfied as to the good result that tracheotomy, which had been ordered by me at my usual visit, was not performed. The following day the breathing had improved, and gave no further trouble, the patient making a good recovery.

22. A child aged two years and a half. Had been poorly and feverish for two days. Glands at angle of jaw much swollen. Small patches of membrane on both tonsils and on soft palate. Temperature 102°. Albumen present in small quantity. The following day, having to leave town on a long journey, my friend Dr. Drewitt took charge of this patient. He kindly furnished me with the following notes: "The child had a temperature of 104·2°. Faint rash on thighs, abdomen, and face, not quite like scarlet fever; besides, it rapidly went away. There was abundant diphtheritic membrane on both tonsils, and on the pillars of the fauces. Pulse 140; respiration 44. He has gone on with the glycerirum boracis and powder (borax and sugar)." The following morning I saw the child again. A good night had been passed. There was decidedly less membrane. The pulse and temperature were normal. On the fifth day all membrane had disappeared; the albumen had increased. The attack was not followed by any loss of power. When first seen by me, this child was found occupying a small room, the door of which opened close upon a dark cupboard in which had been a watercloset. The closet had been removed, and the soil-pipe said to have been soldered up, but, judging from the odour of the cupboard, this could not have been done properly. The little patient was at once removed into a spacious reception-room on the first floor, the windows being kept open night and day.

23. R. I——, aged thirteen. Admitted on July 13th, 1887; discharged well on Aug. 31st. Copious deposit of membrane on both tonsils and uvula; glands swollen and tender; temperature 103°; albumen present. On the eighth day all membrane had disappeared. On the tenth day fluids returned through the nose; this symptom was followed by squint and cardiac weakness, with rapid action of heart. The reflexes were normal. Improvement very slow.

24. A. W——, aged eight. Admitted on July 13th, 1887; discharged well on Aug. 10th. Both tonsils covered with membrane. Erythematous rash on chest. Reflexes normal. No albumen or paralysis.

25. R. G——, aged three. Admitted on Oct. 26th, 1887; died Nov. 1st. This child came from a house where another child had just died of diphtheria, and had been ill two days suffering from difficulty in breathing. There was membrane on the tonsils and palate, and urgent dyspnœa. Tracheotomy was performed, and the child rallied, living four days. After death membrane was found extending along the bronchi.

26. M. P——, aged two years and a half. Admitted on

Jan. 6th, 1888; died on Jan. 12th. A healthy robust-looking child. Admitted for ulceration of vulva. There was superficial ulceration of both thighs and labia, the ulcerated surface being covered with a greyish membranons slough. In the left groin, a well-marked raised patch of slough of a typical membrane-like character. The parts were treated with a solution of nitrate of silver (twenty grains to the ounce), and speedily assumed a healthy aspect. Four days later the following note was made: "The ulceration has greatly lost its specific character. Most of the grey slough has entirely disappeared, especially from the very characteristic patch on the left groin. There does not appear to be any longer a tendency to the formation of membrane. Although these local symptoms have improved, the general health of the child is not so good. The breathing is slightly impeded and stridulous, the voice husky. Temperature rising. Urine loaded with albumen. No trace of membrane to be seen in throat." Tracheotomy was performed, the child being relieved. Twelve hours later he died suddenly on being lifted up by the nurse. The necropsy was made by Dr. Walter Colman twenty hours after death. Heart: no microscopic change in valves. Lungs: distinct firm layer of membrane in the bronchi, especially in the lower lobes; numerous patches of broncho-pneumonia, and collapse in the same parts. Larynx and trachea lined by firm thin layer of membrane. The kidneys showed incipient nephritis. There was no spread of membrane into the vagina, uterus, or bladder.

27. A. F——, aged three years and a half. Admitted on June 14th, 1888; discharged well on July 14th. Said to have been ill for about a week, and brought to the hospital on account of dyspnœa. Posterior pillars of fauces and pharynx coated with membrane. Breathing stridulous. Four hours after admission tracheotomy was performed by Mr. Lush, house surgeon, the trachea being feathered out with a solution of bicarbonate of soda, twenty grains to the ounce. The following day the general conditions had improved, breathing being easy. Several patches of membrane were coughed up; the spray of soda freely used. The urine contained albumen. Improvement took place daily, the tube being removed on the fourteenth day.

28. J. S——, aged six. Admitted on Sept. 28th, 1888; discharged well on Oct. 22nd. Both tonsils completely covered with membranous deposit, which, when removed, left a bleeding surface. Glands at angle of jaw much swollen. Temperature 100·4°. On the following day the membrane had nearly disappeared from the tonsils. There were now some small patches on the uvula and soft palate. The throat had been continually washed with solution of bicarbonate of soda, forty grains to the ounce. On the fifth day the action of the heart was very weak, and some albumen was present in the urine. On the eighth day the child vomited three times, and the albumen had increased. On the thirteenth day the stomach retained no food, and the child was very weak. Report of house-physician: "Looks as if dying." During the following three days the patient was fed by nutrient enemata, the injection being given every four hours, and containing half an ounce of brandy. On the nineteenth day there was decided improvement, and the child rapidly recovered, the urine being free from albumen on the twentieth day.

(To be concluded.)

CASE OF

GENERAL TETANOID CONTRACTURE, WITH A TYPHUS-LIKE ERUPTION; RECOVERY.

By ALFRED G. BARRS, M.D., M.R.C.P.

ASSISTANT PHYSICIAN TO THE GENERAL INFIRMARY AT LEEDS; LECTURER ON PHYSIOLOGY IN THE YORKSHIRE COLLEGE OF THE VICTORIA UNIVERSITY.

ON June 14th, 1888, I was asked by Mr. Hawkyard, of Leeds, to see with him Mr. A——, aged forty-three, on account of a condition of great obscurity, the striking features of which were a stiffness of the neck and closure of the jaw, accompanied by an eruption of very general distribution. I transcribe the record of the case from my notebook as it was made on the day I first saw the patient.

Mr. A—— is the foreman engineer at a large tannery, where he has the superintendence of the whole of the machinery and is brought much into contact with hides, mostly foreign, in both the wet and the dry state. The history is as follows:—On May 27th, 1888, he took to his bed on account of the stiffness about the jaws and consequent inability to swallow, which had rapidly developed during the two preceding days, with some general malaise, perhaps more from alarm than anything else. There had been no injury; and no cause for the condition was suggested. The stiffness of the neck and closure of the jaw continued, and on May 29th there appeared an eruption upon the trunk and limbs, but not on the face. There had been no vomiting. The temperature had on one occasion been raised to 101°, but otherwise it had been normal. The tetanoid condition had been continuous throughout, with periodic exacerbations, especially noticeable during sleep; and occasionally there had been marked opisthotonos. The "spasms," occurring just as he was going to sleep, had been occasionally of sufficient violence to raise him entirely from the bed. There had been great fetor of the breath, probably from carious teeth, of which there were many, and a spongy condition of the gums.

Present condition, June 14th (18th day).—He is a well-built, healthy-looking man, lying in bed. He is not wasted, and he has no general appearance which would indicate any continued fever, the duration of his illness, or any such grave condition as ordinary tetanus. The face is rather flushed, but has, on the whole, the ruddy appearance which is natural to him when in good health. There is profuse sweating of the whole body, with a well-marked rheumatic odour. The eyes are bright and natural, and the pupils normal. The intellect is quite clear, and he takes a lively and intelligent interest in his condition. There is a striking and almost extreme tetanic grin, widening his mouth, and showing the spongy gums and carious teeth in close and fixed apposition. With great effort, he is able to separate the jaws sufficiently to admit the tip of one's finger, but not to retain them so separated for any length of time, the jaw slowly closing again in spite of his obvious endeavour to prevent it. There is a moderate degree of cervical opisthotonos. There is well-marked rigidity of the abdominal rectus, which is the chief seat of pain. The whole trunk is rigid, so that any attempt to pull him up into the sitting posture only ends in his sliding down in the bed. The rigidity of the head, neck, and trunk muscles is extreme. The legs also are rigid, but to a less degree; passive movement is much resisted. The knee jerks are present, and, in spite of the rigidity, normal in excursion. The arms and hands at the present moment are not affected, but in the exacerbations they share in the general disturbance. There is no affection of the joints.

The eruption is a most remarkable one. It is seen in its greatest intensity upon the surface of the abdomen and chest, less upon the back, less still upon the arms, and least of all upon the legs. The face and neck are quite clear. From its distribution it might be suggested that it is due to the sweating, which has been profuse throughout. This may be so, though I am inclined to think otherwise, for the reason that it is utterly unlike any sweat eruption which I have ever seen. On the abdomen the appearances are as much like those of an exaggerated typhus eruption as anything to which I can liken it. The whole surface of the abdomen is thickly covered with a papular or papulo-vesicular eruption, of a livid, dusky-red appearance, almost the colour of the ordinary "port-wine" mark. It is a coarse-looking eruption generally, and most, if not all, of its colour disappears on pressure. On the arms the spots are less closely placed, and are of a more rosy aspect, and here and there have an eczematous appearance. Here, as on the abdomen, the colour for the most part disappears when the skin is stretched. The eruption has been present throughout the case, but has constantly varied in the depth of its colour. Mr. Hawkyard thinks it comes out in successive crops, each crop lasting perhaps three days. The digestive, circulatory, and urinary organs were not, and had not been, disturbed in the least degree. Feeding had been almost impossible on account of the closure of the jaws. The temperature was normal.

I saw him again on June 16th, when he was remarkably improved. The trismus was much less marked. The eruption had largely disappeared, and on the arms had left some finely desquamating patches. At my suggestion, he had been taking some moderate doses of quinine. On June 20th the improvement was most marked, though the grin was still present, but in a much less degree. He was able to open his mouth more than formerly, and, above all, he could get out of bed and walk, though his move-

ments in so doing indicated still a considerable amount of rigidity. The difficulty in swallowing and the curiously high-pitched voice, present from the first, were still to be observed. In the beginning of July the whole of the manifestations had disappeared, and he was quite well, though somewhat weak.

On first seeing the case, one was struck at once by the marked, even extreme, degree of the tetanoid condition and the intensity of the eruption; while the patient remained cheerful, not seriously wasted, and clearly in no great danger so far as life was concerned. Certainly he had wasted a little, but the difficulty in feeding him and the necessary abstinence from solids readily accounted for this feature of the case. It occurred to me that the case might be a very anomalous form of spinal meningitis or cerebro-spinal fever, in which disease typhus-like eruptions are said to have occurred; but there was no pyrexia, and the case had not in the least the general aspect which one would expect to see in such a grave condition. The muscular spasm was certainly quite as marked as in the most severe cases of true surgical tetanus, and behaved as such in every respect; and at one time I thought it might be an example of true tetanus arising from the carious teeth and spongy gums; but here, again, the good general condition, and ultimately the event of the case in complete recovery under the simplest of treatment, pointed strongly against the idea of any such serious disease. I had ventured to give a good prognosis in the case, though I was unable to state any opinion as to its nature more definite than that expressed in the title under which this paper appears.

Leeds.

THE DURATION OF LIFE IN CANCER OF THE BREAST.

By W. ROGER WILLIAMS, F.R.C.S.,

SURGEON TO THE WESTERN GENERAL DISPENSARY; SURGICAL REGISTRAR TO THE MIDDLESEX HOSPITAL.

CONSIDERABLE discrepancies are apparent in the results arrived at by different investigators of this important subject. Astley Cooper says: "The progress of this complaint is in some persons extremely slow. In general, however, it destroys life in about four years from the commencement." Paget finds that "the average duration of life, from the patient's first observation of the disease, is a little more than four years." Bryant's experience agrees with this. According to Sibley, the duration of life in cases *operated on* is 53·2 months; and in those *not operated on* 32·25 months. Gross, the latest worker in this field, gives 38·5 months as the duration of life for those operated on; and 28·6 months for those in whom the disease ran its course without any operative interference. I have recorded and tabulated all the fatal cases of breast cancer under treatment at the Middlesex Hospital during the last six years, with the result that the average duration of life—dating from the time when the disease was *first noticed*—is 60·5 months for those who underwent operation, and 44·8 months for those in whom the disease ran its natural course. Gross's statistics are derived from massing the results of more than a dozen different surgeons, chiefly German. He has not expressly stated that in all his cases the duration of life is dated from the time when the disease was *first noticed* by the patient. It appears to me, whether from this cause or some other, that his figures considerably under-estimate the total duration of life in this disease. I believe the experience of English surgeons will be found to be more in accord with my figures.

I will now give, as briefly as possible, some further information on this subject. I think the facts revealed below justify us in taking a more hopeful view of breast cancer than is customary. We must not forget that cancer is a disease less malignant in some parts than in others. The prognosis is certainly much better in breast cancer, as regards duration of life, than it is when this disease affects the tongue (18 months), the uterus (24 months), or the rectum (27 months). In this respect cancer of the breast is on a par with cancer of the lower lip, in which the average duration of life is 60·7 months. In the following estimate a month means 28 days.

1. *Total duration of life.*—The duration of life in 64 fatal cases, dating from the time when the disease was *first noticed* is shown in Table I. Of the 4 cases of the first group in which the duration of the disease exceeded 102 months, it lasted 137·6, 149·8, 159, and 297 months respectively. Of the 4 cases of the second group in which the duration of the disease exceeded 102 months, it lasted 116·6, 130, 157 and 194·7 months respectively.

2. *Duration of life subsequent to operation.*—In 25 cases the *average* duration of life subsequent to amputation of the breast &c. for the primary disease was 40·3 months; the shortest 7 days; the longest 259 months. This subject is further illustrated by Table II.

3. *The average interval between the first operation and the first obvious recurrence* (in 46 cases) was 26 months; the maximum 130 months; the minimum 2·5 months. Table III. further illustrates this subject. The duration of the interval between the first operation and the first obvious recurrence in the 8 cases of from 52 months and upwards was as follows: 52 months (2 cases), 58, 62, 89, 91, 124, and 130 months respectively.

TABLE I.

Duration of life in periods of 6 months.	Under 6 months.	6 to 12	12 to 18	18 to 24	24 to 30	30 to 36	36 to 42	42 to 48	48 to 54	54 to 60	60 to 66	66 to 72	72 to 78	78 to 84	84 to 90	90 to 96	96 to 102	Over 102 months.	Shortest duration in mnths.	Longest duration in mnths.	Average duration in mnths.
Thirty cases in which the *breast was amputated*	1	3	3	..	3	2	4	1	..	2	1	1	1	2	..	2	..	4	5·5	297	60·3
Thirty-four cases in which *no operation* was done	3	3	5	3	3	1	6	1	2	..	..	..	..	1	..	2	..	4	2·7	194·7	44·8

TABLE II.

Showing the duration of life subsequently to amputation of the breast for the primary disease.	Under 1 month.	1 to 6	6 to 12	12 to 18	18 to 24	24 to 30	30 to 36	49 to 56	56 to 62	68 to 74	111·5 months.	159 months.	259 months.
In twenty-five cases	7	1	2	1	3	2	2	2	1	1	1	1	1

TABLE III.

Showing the interval between the *first operation* and the *first obvious recurrence* in monthly periods.	Under 3 months.	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	11 to 12	12 to 13	15 to 16	17 to 18	23 to 24	25 to 26	33 to 34	36 to 37	44 to 45	52 mnths. and upwards
In forty-six cases of recurrent breast cancer	3	3	1	4	1	1	3	1	3	6	1	1	2	5	1	1	1	8

TREATMENT OF NÆVI BY ELECTROLYSIS.

BY LEWIS W. MARSHALL, M.D.,
SURGEON TO THE CHILDREN'S HOSPITAL, NOTTINGHAM.

I AM induced to give the experience of about ten years' use of electrolysis in the treatment of nævi, because in my hands it has answered so well, and seems to possess advantages which none of the more commonly adopted methods of dealing with these growths can be said to have. Even amongst those who apply electrolysis there is some difference of opinion as to the value of the negative or positive pole for this purpose, and an equal amount of difference exists as to the wisdom of substituting a rheophore for a needle to complete the circuit. Having preferred to use electrolysis to any other plan of treatment for many years in all nævi, I have, at least to my own satisfaction, formed some general opinion upon these points of difference for future guidance.

Before passing on to the consideration in detail of electrolysis, I should wish to mention in what I consider the older plans are deficient. 1. *Ligature:* This treatment has always appeared to me to be barbarous in the extreme, because the after-suffering, even though the skin be carefully omitted from the ligature, is very great. The scar left is a very uncertain quantity, and not in other ways satisfactory. It cannot either be claimed for ligature, however done, that it is invariably successful. The nævi about the face, eyelids, nose, lips, tongue, and possibly near the fontanelles, all of which places are common situations for this form of growth, ligature is most inapplicable, because of the uncertainty as to its results. The loss of tissue involved being a factor of considerable moment in some of those parts named (lids, nose, lips) and in others (the tongue), for obvious reasons it is unsuitable. For these reasons I have entirely abandoned the ligature. 2. *Excision:* For the removal of angiomata on the trunk this operation is very suitable; the faint scar which is left when healing is rapid (and this is usually the case if proper dressing and care be used) being of no consideration. This plan, although it is effected by "cutting," as the friends express it, is not so much objected to by them, because they are glad to be rid of the matter speedily. Blood loss is always of moment in young infants, but even large nævi may be removed in this way with a fractional loss if care be taken to be well outside the capsule. 3. My knowledge of *injection* is most limited, but the risks are stated to be not inconsiderable by those who are in the habit of using it. 4. The simpler methods of treatment, such as ethylate of sodium, liquor arsenicalis, &c., are all more or less failures in my hands, the former (ethylate) being also, I find, a very painful application, which its originator states is not the case. The bulbous cautery is most useful in nævi on the tongue if cocaine be first injected or painted over the surface.

Electrolysis.—By its use we get: (1) an operation which gives no after-pain; (2) it is free from danger; (3) there is no bleeding; (4) the scar is white, and does not tend to contraction in loose structures like the eyelids. In adopting this plan, it is necessary at once to recognise the fact that it is not usually expeditious in its action; this is its chief drawback, because parents are apt to clamour for some obvious effect to be produced, and are loth to wait with patience for the gradual fading of the nævus, by which we get our best results. Occasionally, nævi may be cured at one sitting without sloughing, and they may speedily diminish; but this is in my experience uncommon, and it is not wise to attempt to obtain so rapid an action, because the chances are against the effect being good. Stop the growth and be content to wait is the better method, re-attacking if development takes place or its subsidence is long delayed. I always use the positive pole with one or more needles, according to the size of the growth and its situation. The needle (or needles, as the case may be) is moved about systematically to attack the growth in various parts. This is done without withdrawing the needle after it has remained long enough in one spot to produce some effect. It is wiser at first to work well away from the surface of the tumour, especially in raised nævi which are very florid, to avoid risk of destroying the thin covering. The circuit is completed by attaching a rheophore to the negative pole: by this we avoid an unnecessary puncture, and I find that the process is equally effectual. I have not yet succeeded in finding a good means for insulating needles, and the scar left by the negative needles is brown and very disfiguring. I prefer to use the positive instead of the negative pole, because it is slower in its action and therefore less likely to lead to sloughing, and the bleeding on withdrawal of the needle is much less troublesome. The objection to the scar left by the negative needle has already been referred to. The number of cells used, I find in my notes, varies somewhat, but my usual custom is to commence with five Leclanché cells (Silvertown Battery Company), and increase according to the effect produced. Ten cells are generally sufficient, but in deep subcutaneous nævi I have applied twenty cells. The amount of tension caused must be carefully gauged, cutaneous nævi being capable of standing very little. Change in colour to a dusky hue is a good guide to judge when it is requisite to stop the current. I arrived at the conclusions detailed here by testing the number of cells and their effect on nævi on the trunk where scarring was of less importance. On withdrawal of the needle, all that is required is to rotate it before pulling to free it, and then paint the orifice with collodion.

Nottingham.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

DISLOCATION OF THE ELBOW BACKWARDS: A PERSONAL EXPERIENCE.

BY LEONARD W. SEDGWICK, M.D.

THE other day, whilst crossing the hall of the Grand Hotel at Brighton, and wearing a pair of walking boots with steel nails in the heels, I slipped, fell on the palm of my left hand (which I had stretched behind me to save my head), and completely displaced both bones of the forearm backwards. The joint was slightly movable and somewhat flexed, with the hand a little prone. My friend, Dr. Marcus Allen, was sent for, but he was not at home; so I thought I would try to reduce the dislocation myself. The humerus was well advanced in the forearm; the olecranon, with the great sigmoid cavity, and I think the coronoid process, were easily felt; and the head of the radius, with its cupped top, was manifest. The muscles were soft and limp, all but the biceps and its tendon, which were hard and tight. I stiffened my upper arm by the action of its muscles, and extended the lower arm as well as I could; then hooking the fingers of my right hand over the end of the olecranon, and my thumb over the head of the radius, I steadily pushed downwards, and in three or four minutes the bones quietly rushed into place. I then bent the arm to a right angle, and held it safely there; soon Dr. Allen came, examined it, and assured me that it was all right, and that there was no fracture. I had it day and night in a leathern trough-sling, and did not compress it with bandages, but kept it cool by applying whisky on a rag two or three times a day for as long as it was comforting, and at the end of twelve days I had a fair amount of motion. There was a good deal of swelling for the first four or five days, and much ecchymosis, especially on the inner side of the lower end of the upper arm and just above the anterior annular ligament of the wrist. I imagine that there was not a very great deal of pain in the proceeding, or perhaps I should not have persevered; but the pain may have been overborne by the mental pleasure of being able to put the joint in myself.

I tell this story to direct attention to the mode of reduction of the dislocation, which, if applied to another, would be to grasp the humerus firmly with one's left hand, to get the patient to extend his arm as best he could, and to hook on to the olecranon with the fingers of one's right hand and pull, or rather push, it in the direction of the axis of the limb. In the extended position the coronoid process of the ulna would be, to some extent, lifted out of the olecranon

fossa of the humerus, and any action of the biceps helping in replacement would be exerted at less disadvantage than during flexure. Thus reduction would be easy unless there were such an amount of swelling that the olecranon could not be felt.

Gloucester-terrace, W.

A CASE OF STRICTURE OF THE BILIARY DUCT.

BY F. LUCAS BENHAM, M.D. LOND., M.R.C.P.

THE following is an example of a somewhat uncommon condition of obstructive jaundice, difficult of diagnosis during life, and of which, though several other cases have been recorded, the cause is still obscure.

H. W——, aged eighty-six, was formerly a butler, but had for many years been too infirm to work, and had been living on a pension. He had had originally a good constitution, but had suffered for a long while from chronic gout, attacks of which had left his knees stiff and weak; consequently he seldom went out of the house. His skin was pale and rather sallow and waxy, but he had never had jaundice or any attacks at all resembling biliary colic. On April 3rd, 1886, he was suddenly seized with severe pain in the right hypochondrium, with acidity of stomach and constant vomiting. In a day or so jaundice appeared, with bile pigment in the urine, and colourless fæces, just like yeast. The jaundice became deeper. The pain subsided partially to mere aching in two or three days, but the burning and acidity in the stomach and throat persisted. There was very troublesome itching of the skin, the pulse was slow, and the bowels constipated. There was very little recurrence of pain, but the right hypochondrium remained tender. The liver could be felt just below the ribs and xiphoid cartilage, hard, but without any great irregularity of outline. After a few days the patient got up daily, but in about a month (early in May) he became weaker and took to bed again, and then began noticeably to lose flesh. The skin had become of a deeper hue—brownish yellow; urine and fæces as before. Acid dyspepsia occurred on eating anything solid. About the middle of May he gradually became drowsy by day, rambling a little by night, and more prostrate; the tongue, hitherto quite clean, became coated with thick, rough, dry fur. On May 18th partial suppression and incontinence of urine took place, without distension of the bladder; relief was given by stupes. The urine was scanty, and somewhat offensive. On the 19th there was an increase of tenderness all over the abdomen, especially the right hypochondrium. The patient was sinking, and nearly fainted once or twice. Passive congestion of the lungs supervened, and he died on May 20th. The treatment had been by mercury and chalk, with saline aperients, and afterwards iodide of potassium was tried, but without any appreciable effect on the jaundice.

A necropsy was made thirty-two hours after death. The abdomen only was opened. The liver could not be felt through the abdominal walls. Parietes fat. Very little fluid in the peritoneum; no peritonitis. Bowels moderately distended with flatus. Liver small, sunk beneath the ribs; rather hard, but flaccid; very dark, mottled with yellow on surface and section; no perihepatitis. Gall bladder nearly empty; it contained very thick dark-green mucus, and two or three small masses of inspissated pigment. On examining the bile duct, it presented an indurated swelling, about the size of an almond kernel, on the hepatic duct, at its entry into the cystic duct. This was found to be a local thickening of the wall of the hepatic duct, narrowing the tube so as to be almost impermeable, and partially involving the cystic duct also. The mucous membrane, though constricted and shrunk, was smooth and healthy. No gall stone or any sort of concretion was found. The ductus communis was inflamed, but patent. Kidneys large, soft, and red from recent congestion; capsules easily stripped; substance soft, but cortex very thin and atrophied.

Remarks.—This case is similar to one described by Dr. Phillips before the Clinical Society in October, 1887, and to others referred to in that paper previously reported by Holmes, Moxon, and Johnson: the character of the stricture was the same; calculi were absent throughout; there was no ulceration of the mucous membranes, and the cause of the affection was equally obscure. During life I supposed the case to be one of impacted gall stone, or else of cancer of the liver, but without positive evidence of either. One peculiarity of this case was the sudden onset of the symptoms, which I can only explain by the duct—which from the hardness and thickness of the stricture must have been affected for a considerable time and become much reduced in calibre—having become plugged with mucus. The typhoid condition and nervous symptoms which appeared at the close of the illness may perhaps be attributed to the atrophy of the liver which took place then.

Elizabeth-street, S.W.

GANGRENOUS INFLAMMATION OF LABIA: CASE OF NOMA.

BY E. ST. GEORGE QUEELY,
GOVERNMENT MEDICAL OFFICER, PALMER DISTRICT, QUEENSLAND.

THE following case has just come under my notice and may be of interest.

Jessie M——, aged nine, had been suffering for about five days previously to my seeing her from swelling and inflammation of the right labium, which her mother had poulticed continually. When I saw her on the evening of Oct. 12th the right labium was greatly swollen, of a dark-red colour, and very painful to the touch, and about the middle there was a small shallow ulcer. The tongue was foul, skin hot, pulse quick, and bowels confined. No history could be obtained, only she felt some irritation there a few days before she complained. She had always been a healthy child, the only illness being an attack of measles about four months before. At first her father thought she had been injured by riding across a fence, and suggested a splinter, but of this there was no sign. On the third day of my visit both labia were very enlarged and of a deep-red colour. There was an ulcer about the size of a threepenny-piece, and a second, but smaller one, above it. The child screamed on the slightest movement. The urine was passed with difficulty in a standing position, causing great agony. There was a slight discharge from the vulva, from which the epithelium was stripped, leading to ulceration the next day. On the fourth evening there was great itching, which lasted for some hours in spite of all treatment. On the fifth day the symptoms were much worse; the glands in the right groin were enlarged and inflamed, and the abdomen was swollen. The ulcerations had become larger, and fresh ones had appeared on the fourchette and perineum. The buttocks were covered with a rash. The vulvar opening was continually closed by discharge, and the labia were gangrenous. The bowels were open, dark-green matter being passed, which was very offensive. On the fifth and sixth nights the patient was slightly delirious. The symptoms remained unchanged on the seventh day; but from the eighth the disease seemed to decline, and on the sixteenth she was able to leave her bed, and two days afterwards was convalescent.

With regard to treatment, the child was confined to bed and absolute cleanliness enforced. She was placed sitting in a warm bath (into which a little potash permanganate was thrown) three times a day, the parts to be gently syringed with Condy's fluid, and lint soaked in a lotion of opium and carbolic applied. The dressings had to be changed while the child was under the influence of chloroform. The ulcerations were checked by the free use of the solid nitrate of silver. I found zinc ointment made with vaseline and a little carbolic acid of more use and better borne by the patient than any other application; in fact, it was the only thing that seemed to give relief from the excessive irritation, and from the time I commenced the ointment the disease seemed to fade. I used it very thickly, especially between the lips of the vulva. Internally, I gave quinine and iron, with abundance of strong liquid nourishing food and port wine. The bowels were relieved by saline aperients.

On my first visit I diagnosed the disease as phlegmonous inflammation of the labia, but as there was no formation of pus or abscess, and as the ulcerations increased and were gangrenous, with ash-coloured secretion and dusky-coloured skin, I saw that I had to deal with a more serious affection, which is not fortunately of frequent occurrence in Queensland—namely, noma. I believe now that this gangrenous inflammation of the labia was a sequela of the measles, as I since found that the child was neglected during the attack, and that she fell into a low state of health in consequence.

Maytown Hospital, Queensland.

A DIFFICULTY IN PARTURITION.

By J. DAVIDSON, M.B. LOND., &c.

MRS. M—— was confined of her second child on Dec. 16th, 1888. Labour began at 3 A.M., and I was sent for at 11 A.M. The pains were strong, and the os was well dilated, but the head would not come down, so I delivered her with forceps at about 1.45 P.M. Great difficulty was experienced in delivering the shoulders. The cord was round the neck of the child once, and was very tight. Traction applied to the axilla produced very little effect, and simultaneously with each effort at traction the child's face became livid, resuming its natural colour again during the intervals between traction. As the cord was too tight to pass over the head or shoulders, I tied it in two places where it was round the neck, and divided it, when the shoulders were immediately born with the greatest ease. The child's heart was beating well, but respiratory movements were absent; these, however, were well established after two or three minutes. The cord was unfortunately not measured, but its length was about twelve or at the most fourteen inches from placenta to umbilicus. I examined the patient almost immediately after delivery, and found the placenta in the vagina.

Where there is every prospect that delivery of the child will immediately follow division of the cord in circumstances similar to the above, this would appear to be a much safer mode of treatment than waiting till the child and the placenta are both expelled together.

Uxbridge.

CASE OF RUPTURE OF THE HEART.

By JOHN HENRY ASHTON, M.R.C.S. ENG.

THE son of Mrs. S—— sent for me on Sunday morning, Nov. 12th, to see his mother. Death, however, had occurred before my arrival. The coroner, Mr. Braxton Hicks, directed me to make a post-mortem examination. The deceased, I learned, was seventy-three years of age. I found the body well nourished. On opening the thorax, the pericardium was distended by fluid and clotted blood; on removing this, a rupture, three-quarters of an inch long, could be seen on the anterior surface of the left ventricle: this extended through its walls into the cavity, and from it blood could be made to flow by pressure, the cavity of the ventricle being full. The right ventricle was empty, and the tricuspid orifice slightly dilated; the valves were healthy. The mitral valves were somewhat thickened. The heart was not enlarged; the muscular substance was mottled in colour, softened, and very easily lacerated; the fibres, examined under the microscope, had undergone fatty degeneration. A large gall stone almost entirely filled the gall bladder, and a small hard tumour was found at the lower border of the omentum adherent to the peritoneum and intestines.

The following history of the case was given me. The general health of the deceased was very good. Three years ago she had an attack of syncope, which lasted one hour and was attended by partial unconsciousness; since then she has been well, with the exception of experiencing shortness of breath when she has had to go upstairs. She had recently an attack of jaundice, which quickly passed away, and since then she has complained of cold feet. She has never suffered from pain in the side, or sickness. On the morning of her death she was about her usual duties, when she suddenly fell down, and died almost immediately.

Remarks.—The abiding shortness of breath upon exertion, with the prolonged attack of syncope, would have sufficed during life to have called attention to the state of the heart. It is interesting to note that the large gall stone gave rise to but trifling, if any, symptoms. The place of rupture was observed to be where the evidences of degeneration were most marked, and, as in the majority of recorded cases, took place in the left ventricle and on its anterior surface; the direction of the rent was in the course of the fibres, and about one-third of the distance from the apex to the base.

Sheen Park, Richmond.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum alliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. MARY'S HOSPITAL.

A CASE OF PERNICIOUS ANÆMIA, WITH RECOVERY.

(Under the care of Dr. BROADBENT.)

MUCH has been written on the subject of "pernicious anæmia" during the years which have elapsed since cases of this kind were first described and differentiated by Addison in his lectures at Guy's in 1843,[1] but there still remains some difficulty in distinguishing them from the anæmia found to accompany malignant and some other diseases of obscure character. Dr. Wilks recorded cases in 1847-8 (Guy's Hospital Reports). Addison appears to have called it "idiopathic anæmia," but the disease was not generally recognised as a clinical entity until the year 1872, when Biermer of Zurich wrote about it under the name of "progressive pernicious" anæmia, and awakened the attention of the profession to its characteristics and fatal termination. We should hardly think it necessary to refer to these points in the history of the disease, which are generally conceded, were it not that the credit appears to have been given to Biermer as the first discoverer in a recent review of a paper by Trechsel.[2] The literature on the subject is now voluminous, and we are not able to do more than refer to it, and mention some of the observers who have made it a special study. In 1877 Dr. Fenwick dwelt in his lectures on the occurrence of a similar condition of the system in cases of gastric atrophy.[3] In 1878 the subject was discussed at the Pathological Society,[4] and later in that year[5] Dr. Stephen Mackenzie, in a clinical lecture, referred to the history of the disease, and to an able review by Dr. Pye-Smith of a memoir by Lepine,[6] and the work of recent writers. Dr. Sidney Coupland, in his Gulstonian Lectures in 1881,[7] discussed fully both the disease and its treatment. Dr. William Hunter last year recorded his investigations into this disease; and these offer not only great additions to our knowledge on the subject, but are most important in elucidation of its pathology.[8] We commented[9] on his conclusions, and indicated the chief deductions to be drawn from his investigations at the time. 1. That the disease does not depend upon any impairment of the normal blood formation. 2. The excessive quantity of iron which he found in the liver cells (confirming the results obtained by Quincke and others) is due to an excess of the normal blood disintegration in that organ. 3. The disease depends upon the entrance of some poison, possibly of a cadaveric nature, generated in the gastro-intestinal tract, which gains entrance into the portal system and causes the blood to undergo disintegration therein. The principal pathological changes beyond those mentioned are those of fatty degeneration of the internal organs. We cannot enter upon the question as to the symptoms which distinguish the disease from other forms of anæmia; they are well shown in the case which we publish and are set forth in the papers to which we have referred, also in cases recorded by Immerman of Basle,[10] Quincke,[11] Bramwell,[12] Finney,[13] Padley;[14] and we have published cases in the "Mirror"[15] illustrative of it. Until the publication of Dr. Byrom Bramwell's paper on the

[1] New Sydenham Society. Writings of Thos. Addison, p. 212.
[2] The Etiology of Pernicious Anæmia. Revue Médicale de la Suisse Romande, 1888, in the Medical Recorder.
[3] THE LANCET, vol. ii., pp. 1, 39, 77.
[4] Ibid., vol. i., p. 495. [5] Ibid., vol. ii., p. 799.
[6] London Medical Record, 1877. [7] THE LANCET, vol. i., p. 531, &c.
[8] Ibid., vol. ii., p. 555. [9] Ibid., vol. ii., p. 678.
[10] British and Foreign Med. Chir. Rev., Oct. 1874.
[11] Med. Times and Gaz., 1876. [12] Ibid., 1877.
[13] Brit. Med. Journal, 1881. [14] THE LANCET, 1883, p. 811.
[15] Ibid., vol. i. 1878, p. 13, S. Mackenzie; vol. i. 1881, p. 13, Mitchinson; vol. i. 1883, Carrington.

success obtained by the use of arsenic in pernicious anæmia, it was looked upon as truly progressive, and always to a fatal termination. Since that time there has been a change, and many cases have been published proving the efficacy of arsenic, recovery having frequently followed its employment; sometimes there appears to have been a relapse, and sometimes it has failed, but no treatment has yielded such good results. Iron, which in cases of ordinary anæmia is so efficacious, appears to be almost useless, but a case is recorded in which arsenic failed to cure and the patient recovered on the administration of iron. Other treatment adapted to improve the general health, allay digestive disturbance, produce appetite, &c., has been recommended; and transfusion has been tried in some instances with success (see Coupland), but the use of arsenic is generally indicated. We dwell on this point, as a recent edition of a work on therapeutics does not draw attention to its great properties in such cases. Dr. Broadbent, in a former case[16] which recovered, that of a woman, aged forty-three, who had been suffering for four months, gave the drug in frequent small doses, on the failure of iron, and obtained a cure in two months; in this case he followed a similar plan. It is unusual to find enlargement of the spleen in these cases. Henrot found it enlarged post mortem in two cases, and considers that the state of this organ has much to do with the disease; this view is, however, negatived by the investigations of Dr. Hunter. For the following report we are indebted to Mr. J. J. Clarke, M.B. Lond., late house physician.

E. V——, a well-developed woman aged twenty-six, was admitted on Feb. 7th, 1888, complaining of headache and vomiting. For seven years she had worked as a domestic servant, and for the last year as a cook. She was in the habit of taking one pint of beer a day. She says she has always been subject to "headache and biliousness." She dated her illness from Christmas last, since when she had lost appetite and flesh, and had had frequent headache and sleeplessness. A fortnight ago her friends first noticed the yellowness of her skin. She began to vomit eight days before admission, and has vomited at intervals ever since. The catamenia have been regular up to the day of admission. When first examined the patient looked very anæmic and jaundiced, but the former condition was the more marked of the two. The staining of the skin was universal, but the sclerotics were unaffected. The fat at the canthi was stained yellow. The lips and mucous membrane were slate-coloured. There was no marked wasting. The vessels of the neck throbbed violently. The patient was very restless; she kept her eyes closed, and was continually moaning. She complained chiefly of headache. She had tinnitus, and she could not sleep. The tongue was thickly coated with a moist white fur. There was great anorexia, pain after food, and vomiting of bile-stained fluid. The spleen was enlarged, reaching nearly to the middle line across the upper part of the epigastrium. It was firm and tender. The stools were soft and of a normal colour. The radial arteries were small, and not felt between the beats. The wave was small, short, and easily arrested. The rate was 114 and regular. The apex beat was seen and felt just outside the nipple line in the fifth space. There were soft blowing murmurs over the apex and the aortic and pulmonary cartilages, and a marked venous hum was heard in the neck. Under the microscope, the blood was seen to contain much fine granular matter and irregular granular bodies, about eight times the size of a leucocyte. The red corpuscles were greatly reduced in number, an average of seven only being counted to the square of Gowers' slide, instead of fifty-four. Many of the corpuscles were tailed or otherwise deformed. On examining the eyes, the pupils were seen to be unequal; the left was the larger, and on this side the cornea was found to be conical. The outlines of both discs were hazy, but there was no distinct papillitis. Both retinæ showed extensive recent hæmorrhages and also white patches. On the left side the yellow spot was found to be involved in a large hæmorrhage. The urine was concentrated, and deposited uric acid crystals and urates on standing. The temperature on admission was 102°. The patient was put on liquid food, administered frequently. A sixth of a grain of morphia with a twentieth of a grain of hyoscyamine were injected under the skin at night.

On Feb. 10th Dr. Broadbent saw the patient, and ordered her two minims and a half of liquor arsenicalis every three hours. The next day there was a marked diminution in the tenderness of the spleen, and the vomiting ceased, though the pyrexia and other symptoms were still severe. The evening temperature on the 11th and 12th was 104°; the highest point reached afterwards was 102·5°. There were never any signs of arsenical irritation. The improvement was gradual but decided. On the 21st a tinge of colour could be seen in the lips and cheeks, and the evening temperature reached only 100·5°. As the temperature fell the pulse rate increased and was now 144. The headache was much less, and the tenderness of the spleen had gone altogether. From the time arsenic had been administered vomiting occurred on an average once in forty-eight hours. After this day the improvement went on more rapidly, so that on Feb. 28th the temperature had fallen to normal and the pulse rate to 100. The headache and vomiting had ceased for some days. The heart was still dilated; the same murmurs were present. The spleen was very slightly smaller than on admission, and not at all tender. The sight had improved, and the hæmorrhages into the retina were rapidly clearing up. The improvement went on steadily, so that on March 15th the patient expressed herself as feeling perfectly well. The patient was allowed to sit up for a short time on March 21st and succeeding days, but on the 28th swelling of the feet, headache, and nausea were present, and the patient was again confined to bed. On May 15th she got up again, and on the 20th left the hospital for a convalescent home. At that time the anæmia was less marked and the tongue clean and red. The cardiac murmurs were absent, and the spleen, though still large, was not tender. The catamenia were absent all the time she was in the hospital. Two months afterwards she returned to show herself. She was feeling well; there was a good deal of colour in the lips and cheeks, and the catamenia had returned.

Remarks.—The clinical phenomena are distinctive of pernicious anæmia: a lemon-yellow skin with sclerotics unaffected, and a temperature reaching 104°, are the leading features. The marked effect of arsenic and the tolerance of it are also characteristic. There was no history of catamenial trouble dating from puberty, as there would probably have been had the condition been an extreme degree of chlorosis. The patient's occupation (cook) points to the alimentary canal as the seat of the determining lesion.

[16] Brit. Med. Jour., 1880, p. 508. See also Wilks on "The Therapeutic Value of Arsenic in Anæmic Cases," THE LANCET, vol. i. 1885, p. 658; Withers Moore, British Medical Journal, vol. i. 1881, and Tyrrell Brooks, THE LANCET, vol. ii. 1887, p. 849; and Copeman "On the Changes of the Blood," ibid., vol. i. 1887, p. 1076.

LEEDS GENERAL INFIRMARY.

TWO CASES OF SUPPURATIVE SYNOVITIS, WITH COMPLETE RECOVERY OF THE JOINT.

(Under the care of Mr. A. W. MAYO ROBSON.)

IN these cases of suppuration in the knee joint most satisfactory results were obtained by the treatment adopted, the patients recovering with perfectly movable joints. In neither case, however, was there decomposition of the pus, and in the one which was afterwards treated by incision the part was kept in a condition of asepsis by dressings, which proved sufficient. We are inclined to think the remarks of Mr. Treves on his case refer more to a septic condition of the joint than to such instances as these, for in such it is very rare to obtain anything like satisfactory movement after any method of treatment, and the surgeon is frequently thankful to save the limb even with a stiff joint. In the following record the line of treatment is shown for acute suppurative synovitis: aspiration, followed by incision and efficient drainage, when necessary from repeated accumulation of pus, extension beyond the limits of the joint, the severity of the local or general symptoms. The notes of the cases have been furnished by Mr. Berkeley G. A. Moynihan, M.B., house surgeon.

CASE 1.—Charlotte B——, single, aged twenty-six, was admitted into the infirmary on March 23rd, 1885, with the following history. Whilst going downstairs a few days previously, she felt her knee give way beneath her, but she did not fall; she was unable to straighten the limb, and in about two hours noticed that the knee joint was swollen.

She suffered great pain. On admission the right knee joint was swollen, the synovial cavity being distended with fluid. The limb could not be fully extended, and there was a markedly tender spot over the inner side of the joint. The diagnosis of displaced semilunar cartilage was made, and reduction was effected under ether by completely flexing the limb, then rotating, and suddenly extending it. Although the limb could be fully extended, the swelling did not subside, and the patient continued to have pain, which soon affected her general health. On April 9th the knee joint was much swollen and very painful, and the axillary temperature was 101·5°. Mr. Robson aspirated the joint and removed four ounces of pus. The patient was immediately relieved, but two days afterwards the joint had again become distended and painful, and the patient seemed to be very ill. She complained of being unable to sleep, and was at times delirious. The joint was again aspirated and four ounces of pus removed. As the relief had been only temporary and the local and general symptoms had not abated, the temperature being 103°, on April 17th Mr. Robson incised the joint freely on the outer side, letting out several ounces of pus. A large drainage tube was left in the wound. The operation was performed with full antiseptic precautions. The wound was dressed on the 19th and 21st, when there was very little discharge, and the tube was shortened; and on the 24th, there being simply a serous oozing, the tube was removed. Although the temperature was normal and there was no swelling, the patient complained of starting pains in the limb when falling asleep. On May 16th the wound was quite healed. On the 24th she was allowed to sit up, the back splint being still on. On June 19th she was sent to the Cookridge Convalescent Home, wearing a Thomas's splint, which she continued to use for several months, after which free exercise of the joint was permitted. When seen in January, 1888, the right knee was so well, that had it not been for the scar of the incision, one could not have told which had been the affected joint. The movements were all perfect, and were performed without the slightest pain or inconvenience.

CASE 2.—Wm. B——, aged nineteen, was admitted on Nov. 28th, 1887, when he gave the following history. Ten days previously, whilst playing football, he was kicked over the knee, but apparently no serious result followed. Four days before admission he again injured the knee whilst at work. The joint soon began to swell and to give pain, and continued in this condition up to the time of his admission. The left knee was then found to be swollen and distended with fluid, the skin being hot, red, and œdematous, and the joint tender and painful on movement. A back splint was applied, with evaporating lotions; but on account of the pain warm salicylic wool poultices were employed. On Dec. 7th, as the swelling and tenderness of the joint continued, and the temperature had been above the normal for several days, once reaching 104°, aspiration was performed, and eight ounces of greenish-yellow purulent fluid was withdrawn. The temperature fell within a few hours from 103° to 101°, and the patient was greatly relieved both locally and generally. On the following day he was quite free from pain, and had a normal temperature. On Dec. 16th, although the back splint was retained, the patient had neither pain nor swelling in the knee. The temperature had never been above normal since the time of the operation. On Jan. 2nd a Thomas' splint was applied, and the patient allowed to get up and to return home on the following day. The splint was worn for two months, after which he was allowed to use the joint, and was advised to rub it freely with oil night and morning. When last seen four months after the injury, he was quite well and had full use of the joint, which seemed perfectly normal.

Remarks by Mr. MAYO ROBSON.—The foregoing two cases illustrate the benefit of early treatment in acute suppuration of a joint, and show that with due care perfect results may be obtained. I was rather astonished to read in the *British Medical Journal* of July 7th, 1888, in a paper by Mr. Frederick Treves on Acute Suppuration of the Knee-joint treated by Continued Irrigation, the following statement: "The treatment advocated is exceedingly simple, and would appear to be efficacious. In my previous experience of other methods of treatment I have never seen complete restoration of functions to follow suppuration of a large joint." It seemed to me, when reading the account that the method of irrigation described was neither so simple nor so easy of application as Mr. Treves would lead one to suppose, and that if by simpler means equally good results can be obtained, I should certainly prefer to adopt them; although I should be glad to avail myself of Mr. Treves' method if simpler treatment failed. In Case 2, aspiration with the other means adopted was sufficient to effect a cure. In Case 1, aspiration having failed, antiseptic incision with drainage was efficiently adopted. In both cases a Thomas' splint ensured perfect rest of the limb, at the same time that the patients were allowed to be walking about; and ultimately massage and exercise perfected the cure.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Chorea and its relation to Rheumatism.

AN ordinary meeting of this Society took place on Jan. 8th, Sir Edward Sieveking, President, in the chair.

Dr. W. P. HERRINGHAM read a communication on eighty cases of Chorea, with antecedents, family history, state of the heart, and subsequent history, of which the following is an abstract:—Antecedents: Acute rheumatism preceded the attack in nineteen cases, immediately in four, at some interval in fifteen. It accompanied the chorea in two cases. Pains in the joints preceded the attack in fifteen cases, and accompanied it in one case. The total number of cases in which rheumatism of some sort could be traced was thirty-seven. Injury, shock, or violent outburst of emotion preceded the attack in six cases, the interval never being greater than two days. Hard mental work or worry were found in twenty cases. These influences were not mutually exclusive, since all those classed under injury, shock, or emotion could alone be considered as exciting, the others only predisposing, causes. In twenty-five cases none of them could be traced, and of these fourteen were first attacks. Nearly all the patients were delicate. Headaches and indigestion were the most common complaints. Family history (calculated from parents, brothers, and sisters only): Rheumatic fever had occurred in twenty-five out of seventy-five families, seventeen of which belonged to thirty-four patients of the rheumatic classes, and the remaining eight to forty-one in whom there was no history of rheumatism. Chorea had occurred in twelve families, nine of which were also rheumatic. State of the heart (throughout): Natural in ten; uncertain (i.e., doubtful endocarditis) in twenty-five; certainly diseased in twenty. Signs of disease developed during observation in eleven cases, and signs which were at first present vanished during observation in four. Thirty-seven cases were seen again, usually at an interval of two years or over. For the most part they presented the same state as before. Of the twenty-five doubtful cases, two had become healthy, seven appeared certainly diseased. Of the eleven cases which developed signs during the attack of chorea, five were re-examined, and of these two were natural, while three gave good evidence of disease. This last was important as tending to show direct influence of chorea upon the heart. The following conclusions were drawn:—1. That a large number of choreic patients were liable to rheumatism. 2. That choreic patients were nearly always of a delicate constitution. 3. That chorea was sometimes directly caused by emotion. 4. That chorea might cause permanent heart disease. 5. That it also gave rise to signs of heart disease which were not permanent.

This paper was followed by one from the pen of Dr. ARCHIBALD E. GARROD, on the Relation of Chorea to Rheumatism, with observations on eighty cases of chorea. The conclusions arrived at in this paper were based upon eighty consecutive cases of chorea, sixty-one of the patients being females, and only nineteen males. Forty-nine were suffering from first attacks. The average age of the female patients was considerably higher than that of the males. There was a history of rheumatic fever in the near relatives of twenty-six patients, of rheumatism with swollen joints in those of three, and of rheumatism in three more, making a total of thirty-two, or 40 per cent., with rheumatic family histories. It was pointed out that the tendency to chorea was far more marked in some rheumatic families than in

others, and examples were quoted illustrating this point. The total number of cases in which there was a personal history of rheumatic manifestations other than endocarditis was thirty-six, or 45 per cent. In fifteen of these there was a definite personal history of rheumatic fever, in nine of rheumatism with swollen joints, in one of joint pains, confining the patient to bed, and in nine of joint pains only. One patient had nodules, but no arthritis, and one had acute pericarditis. It was shown that the same patient sometimes had an attack of chorea with joint pains only, and a later attack with well-marked rheumatic fever. Evidence was brought forward to show that some cases in which there was no family history of rheumatism, and no personal history of joint pains, were nevertheless of rheumatic origin, cases being quoted of rheumatic patients who had previously suffered from chorea, of the development of erythema nodosum and arthritis in the course of apparently non-rheumatic chorea, of chorea with endocarditis and nodules without joint pains, and of the association of acute pericarditis with chorea. In fifteen cases the onset was ascribed to fright, but in some instances inquiry showed that the fright followed the onset of the chorea. A definite murmur was heard in forty-five cases, or 56·25 per cent., and in six others the first sound was murmurish. The percentage of murmurs was naturally highest amongst those with personal histories of rheumatism, but was lowest amongst those with family history only. In some instances the murmurs developed under observation. The opinion was expressed that the endocarditis of chorea was probably always of rheumatic origin, but that we had no evidence to show that all chorea was of rheumatic origin, a considerable number of cases being probably due to emotional and other causes.

Dr. CHEADLE felt surprised that Dr. Herringham had limited his inquiries in the subject of rheumatism to the presence of arthritis. Statistics concerning rheumatism compiled from the consideration of that symptom alone must be inadequate. In many cases the arthritis was extremely slight, or it followed the fever. He related the case of a child admitted under his care at St. Mary's Hospital with chorea; there was no family or personal history of rheumatic fever, no cardiac bruit, and no nodules. When the child had been in hospital four days, transient swelling of the right wrist occurred, followed by an even slighter attack in the left wrist. Many such cases among the poor were frequently overlooked. The presence of subcutaneous nodules, of peri- and endo-carditis and erythema occurring together, afforded good cumulative evidence of rheumatism. Fright was equally effective a cause in the rheumatic and non-rheumatic cases. He related two cases in which chorea had been cured, but mental emotion brought on an acute second attack in each. It was a matter of common observation that rheumatic children were delicate, but it was an open question whether the nervous instability was produced by the rheumatism, or whether they, so to speak, ran together. The report of the Collective Investigation Committee of the British Medical Association showed that headaches were common in this affection. He believed that a much larger proportion of cases of chorea was rheumatic than was generally supposed, and the absence of a history of arthritis was not to be taken as proof that the case was of non-rheumatic origin.

Dr. A. E. SANSOM said that his experience led him to believe that there was a fright-chorea dissociated from rheumatism. He was prepared at the same time to admit that the tendencies to rheumatism were difficult to define, and cases apparently non-rheumatic often became undoubtedly rheumatic later on. He had met with some cases, and he detailed one, in which fright was the determining cause and rheumatism could be excluded altogether. Speculating on the relations between fright-chorea and endocarditis, he thought that the excessive cardiac action which followed the preliminary blanching of terror, might be a factor in the causation of chorea, either directly or indirectly; the violent palpitation occurring in a child might, he thought, set up inflammation of the delicate valve curtains. Two forms of endocarditis should be recognised in association with chorea—the ordinary rheumatic valve thickening, and a "beading" of the valve cusps with small papillary elevations much resembling the lesions produced artificially, and described at the last meeting of the British Medical Association.

Dr. STURGES felt sure that there was a real relation between chorea and rheumatism, but was doubtful as to its amount and extent; he thought there was a tendency to exaggerate this relationship. Dr. Herringham had only been able to trace a direct and immediate connexion between rheumatism and chorea in four cases out of eighty, and it was often necessary to seek far in order to find the rheumatic element. He contrasted this with fright, the chorea following which came on usually without an interval. Great divergence of opinion existed on the subject abroad; in Germany rheumatism was regarded as a small and trivial element in chorea, whereas the French thought that chorea was a mere manifestation of rheumatism. Osler, of the United States, had put together many cases, and had found practically no rheumatic proclivity at all. Discussing the joint pains in connexion with chorea, they were sometimes rheumatic and sometimes not, and he felt there must be some deeper relation between chorea and the joint affection. With regard to treatment, he divided chorea into two stages, the first emotional and often overlooked, the second motional and obvious. If taken early during the first stage, appropriate treatment could arrest the disease.

Dr. BARNES alluded especially to the important relationship existing between chorea and pregnancy, and related a case where a child had chorea and was cured, but in later years, becoming pregnant, the chorea returned with increased severity. The pregnant state was one of high nervous tension and strong emotion, and this perhaps explained the outbreak. Chorea, if evoked by pregnancy, often tended to insanity.

Dr. STEPHEN MACKENZIE thought that the evidence lately had become increasingly strong that rheumatism played a great part in the production of chorea. He thought that the differences noticed in the valves by Dr. Sansom were explicable by the relative age of the lesions, the small beaded vegetations being much more recent. He referred to the gravity of chorea when occurring in pregnancy, but thought that some factor other than gestation must be at work to produce it.

Dr. ROBERT J. LEE regarded chorea as a symptom rather than a disease; though it might coexist with rheumatism, yet there was no evidence to show that the two bore to each other any relation of cause and effect. He did not think pregnancy could be looked upon as a cause of chorea, for the latter occurred so extremely rarely as a complication. Emotional influences, he felt sure, played a considerable part in its production.

Dr. HERRINGHAM, in reply, said he had restricted his inquiries to arthritis, because the evidence of other more equivocal data would be rejected by the sceptical. He could only look upon rheumatism as a collection of symptoms, and, in fact, all other diseases could be included in the same definition.

Dr. GARROD, in reply, said it would be interesting if Dr. Sansom could adduce cases where endocarditis alone had followed fright. A good deal of the discussion had turned upon what was really meant by rheumatism; he himself regarded it as a general disease, of which arthritis was but one manifestation.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Jan. 2nd, Dr. John Williams, President, in the chair.

Specimens.—1. Dr. WILLIAM DUNCAN: Uterus with mixed Sarcoma, removed during life. 2. Dr. W. S. A. GRIFFITH: Acardiacus Acephalus. 3. Mr. TRESTRAIL and Mr. DORAN: Acardiacus Mylacephalus.

Methods of Craniotomy.—A paper bearing this title was read by Dr. ARCHIBALD DONALD, honorary surgeon to St. Mary's Hospital for Women, Manchester. The discussion of the relative merits of craniotomy and Cæsarean section was avoided. It was pointed out that it is of importance still further to improve the methods of craniotomy, since there are certain cases in which the operation is indicated and will continue to be performed even by those holding the most advanced views in regard to Cæsarean section; for example:—1. When forceps has been tried for a long time without effect, or when podalic version has been performed and the head cannot be extricated. 2. When there is certainty, or great probability, that the child is dead. 3. When the condition of the mother is such as would cause Cæsarean section to be almost certainly fatal.

4. In certain cases of deformity of the fœtus. A table of eighteen cases of craniotomy was appended to the paper, and in each case full details were given of the indications for the operation, the method adopted, and the subsequent history of the patient. Remarks were then made on the method of craniotomy to be preferred: (1) in the less marked degrees of pelvic contraction; (2) in cases in which the contraction is considerable. In the first class of cases the method to be preferred depended greatly on the nature of previous attempts at delivery. If the axis-traction forceps has been used to the limits of safety and the head does not come through, the vertex may be perforated without removing the forceps, and the forceps used as a tractor after a firm grasp of the head has been obtained by turning the screw as far as possible. The method recommended in the more severe degrees of contraction consisted in: (1) podalic version and extraction of the body, (2) perforation through the roof of the mouth, (3) cephalotripsy of the after-coming head, and (4) extraction of head by means of cephalotribe, or by traction on the body and lower jaw, combined with supra-pubic pressure. The advantages of this method were stated to be as follows:—1. The base of the skull is effectually broken up. 2. The head is well fixed during perforation and crushing. 3. The position of the head is easily altered, thus allowing the cephalotribe to be applied in different directions, or the head to be brought down with its crushed diameter in the smallest diameter of the pelvis. 4. The collapse and moulding of the head are often brought about readily by combined traction on the jaw and body of the child and supra-pubic pressure. The difficulties of this method were discussed under the following heads: difficulty (1) in the preliminary version; (2) in extracting the body; and (3) in perforating and crushing the head.—Dr. CHAMPNEYS was struck by the large number of craniotomies in Dr. Donald's tables; no less than eleven being entered under the date 1886. The proportion of women in London who required perforation was probably much less. The tables give details which fully justified craniotomy; some hygienic reason must account for the frequency of narrow pelves in Manchester. He asked Dr. Donald for information as to the most common cause of deformity in his cases. From the description of the pelves it was, Dr. Champneys thought, most probably rickets. The statement that the field of the forceps had been enlarged by the introduction of axis traction was striking. Granting the advantages of axis traction, Dr. Champneys did not think that it had yet been proved that the dimensions of possible birth alive at term by forceps had been extended by its introduction in the hands of skilled operators. In one of Dr. Donald's cases, where the pelvis was generally contracted and flattened, the conjugate only two inches and three-eighths, and delivery very difficult, Cæsarean section appeared preferable to craniotomy. Possibly, however, Dr. Donald was compelled to choose the latter operation, not having conducted the case from the onset. In respect to the action of the cephalotribe, it was generally taught that compression in the transverse diameter produced expansion in the antero-posterior diameter. Dr. Champneys believed that it had been shown that no such compensatory expansion took place, but that the change in the head consisted in its elongation vertically, just as in traction by craniotomy forceps. The result of Dr. Donald's practical paper would be that the hitherto unpopular perforation of the after-coming head would require a new trial. If approved, the procedure of forceps in the first instance, version in the second, and perforation of the after-coming head in the third might take the place of our present practice in cases of slight contraction.—Dr. GALABIN agreed with Dr. Donald in preferring the cephalotribe to all other forms of extractors after craniotomy. In all cases, easy or difficult, it was available. The pieces of bone remained covered by the scalp and did not tend to protrude so much as when the craniotomy forceps was used. He did not accept the view that the after-coming head was preferable for perforation and extraction. Dr. Donald had hardly made fair or effectual trial of the cephalotribe, as used in the best way on the fore-coming head. In all the cases recorded by him the fore-coming head was extracted by cranioclasm and removal of pieces of bone; a troublesome and tedious process very seldom necessary. It was only required to get a central grasp with the cephalotribe by passing the fingers high up above the brim to guide the blades. When this had once been done, no repeated crushings were required. The diameter, which was grasped, could be reduced to an inch and a half, and the opposite diameter was not appreciably enlarged. The crushed head could thus be brought through any brim through which we could reasonably expect to extract the body without injury; and it was of no consequence that the base of the skull was only tilted and not broken up. The after-coming head might be easily perforated and extracted in ordinary cases, but in difficult cases the operation was less favourable than that on the fore-coming head, as a large body might render the adjustment of the blades more difficult. The two most difficult cases of extraction he had ever met with had occurred after version, the difficulty commencing when the child's pelvis began to enter its mother's. In one case this occurred although the mother's pelvis had a conjugate of two inches and three-quarters; version had been performed in order to give the child a chance, as the mother had only been married seven months, and declared that she could not be pregnant for more than that time.—Dr. HERMAN considered that the advantages of the axis-traction forceps had been exaggerated; this was admitted even in Paris—the birthplace of that instrument. Craniotomy done at the proper time need not exceed normal labour in mortality. Dr. Donald had lost no cases. Dr. Herman approved of Dr. Donald's plan of measuring the pelvis with the whole hand introduced into the vagina after delivery. Mr. Wallace Johnson had fully described this practice in 1769. The comparative ease of cephalotripsy and cranioclasm largely depended on the operator's relative experience of each of these operations. Dr. Herman had used the cephalotribe for both the fore-coming and after-coming head; in the latter condition no advantages balanced the risk of preliminary version. He always perforated below the occiput. He had not found greater difficulty in the extraction of the fore-coming than in that of the after-coming head. A good cephalotribe, such as Braxton Hicks', would not slip if applied to the greatest diameter of the head. In extracting, he well crushed the fore-coming head, and rotated it so that the crushed part, held in the cephalotribe, should come to lie in the most contracted diameter of the pelvis. When the neck offered resistance from the position of the shoulders, it could be overcome by external pressure on the shoulders, so as to push them in the required direction. This rotation of the head after crushing was an essential step in the operation. Dr. Donald had not speculated as to the cause of the pelvic deformity in his cases. Dr. Herman thought that when there was not clear evidence in the skeleton of the existence of rickets, it was better to refrain from a diagnosis as to the cause of the change in the bones than to infer rickets merely from slight peculiarities in the shape of the pelvis, as was sometimes done.—Dr. GERVIS thought that Dr. Donald's suggestion of perforating the head after the axis-traction forceps were applied, and then using the forceps as tractors to complete the delivery in lesser cases of contraction, was worthy of further trial, as was his more important proposal to perforate the after-coming head through the floor of the mouth, after version. Dr. Gervis had not found version in contracted pelves so difficult as had been suggested. In many cases of flat pelvis, with a conjugate of three inches or even a little more, he had easily completed delivery by version after perforation through the cranial vault in the ordinary way, taking the greatest care that there were no protruding or loose spicules of bone. He agreed with Drs. Galabin and Herman as to the value of the cephalotribe. If care were taken to pass the tips of the blades well above the base, he had rarely found any trouble through slipping of the instrument.—Dr. ROUTH thought that, should there be any difficulty in perforation, or in the use of the cephalotribe in footling cases, or where turning had been performed, through the great size of the child's body, the difficulty could be overcome by a method which he had seen practised many years ago in Vienna with great success. Decapitation was performed close to the foramen magnum, by means of large, curved decapitating scissors, bent at an obtuse angle. Their handles were long, like bone forceps; thus they were powerful, readily effecting the object in view. Either perforation or cephalotripsy could then be easily effected; the head was steadied by pressure from above, assisted by uterine contractions. Dr. Routh had witnessed a demonstration made by Dr. Barnes before the Society. Dr. Barnes cut through a child's head in different directions by means of an écraseur wire. The tightening of the wire turned in all spicules of bone, reducing to a minimum all danger of injury to soft parts. Dr. Routh quite understood that

pelvic deformity was far more frequent in Lancashire than in London, owing to early hard work in factories and unhealthy surroundings; hence perforation was much oftener needed in that county.—Dr. W. DUNCAN having made some observations, Dr. HORROCKS said that he had found the cephalotribe a splendid instrument, answering every purpose. He had never been obliged to resort to cranioclasm, and had not seen that operation performed. Perforation of the fore-coming head was an advantage in hydrocephalus, the head presenting. In Dr. Donald's cases, when the pelvis was only slightly narrowed, perforation of the fore-coming head had been performed, and delivery successfully accomplished. Version and perforation of the after-coming head had only been undertaken in cases where the narrowing was considerable. Dr. Horrocks considered that version could not be performed without great danger in some cases, where labour had been going on for a long time. In two, which he mentioned, both mothers and children were lost. The advantage of perforating and crushing the after-coming head was that it could be held firmly, and so a good grip could be obtained. For it must be admitted that in applying the cephalotribe to the fore-coming head, it not unfrequently slipped off the globe of the skull as it was being screwed up tightly.—Dr. ROUTH wished to explain, in speaking of the decapitating scissors, that he had not made his observations on theory, but from experience. The decapitated head could be perfectly well steadied in the manner he had indicated.—Dr. CULLINGWORTH thought that perforation of the after-coming head, as advocated by Dr. Donald, deserved a fair trial in suitable cases. In respect to the number of cases requiring craniotomy, Dr. Cullingworth said that the maternity department in connexion with St. Mary's Hospital, Manchester, was entirely conducted at the patients' homes by a staff of trained midwives. About 3000 cases were attended annually. The resident obstetric assistant was sent for in all difficult and dangerous cases; he held office for three years. The cases tabulated in this paper occurred during Dr. Donald's tenure of office. The hospital was the oldest, and till recently the only, lying-in charity of any importance in Manchester. Its area included the greater part of both Manchester and Salford, of which the combined population exceeded half a million.—Dr. W. S. A. GRIFFITH described a method, often employed at Queen Charlotte's Hospital, of delivery by the cranioclast in cases of considerable contraction. After perforation the head was seized by a powerful cranioclast, and, while traction was made, rotation was also slowly performed, the object being that the base of the skull was broken up into fragments in a way that no cephalotribe could accomplish, the crushing of the base being caused by its forcible rotation in the contracted brim, and apparently without injury to the soft parts of the mother. He used both cephalotribe and cranioclast, and believed both those instruments to be invaluable.—In reply to these observations on his paper, Dr. DONALD believed that the percentage of craniotomy in Manchester was not so high as Dr. Champneys had inferred. Sixteen of the cases recorded in the table had occurred in the extern maternity department of St. Mary's Hospital, and in two of these cases the operation had been performed in a perfectly normal pelvis on a dead or non-viable fœtus. During the period of time over which these cases extended there had occurred in the extern department of the hospital almost exactly ten thousand confinements. The proportion of cases of craniotomy for deformed pelvis was therefore about one in seven hundred labours—not large considering that the patients were very poor. He maintained from personal experience that delivery had been brought about by axis-traction forceps with comparative ease in many cases in which the ordinary forceps had failed in his hands, and in which craniotomy seemed to be the only resource. In reference to one case in the tables, he did not perform version with a view of saving the child; but, believing craniotomy to be inevitable, he preferred to do it on the after-coming head. He agreed with Dr. Champneys in thinking that Cæsarean section was the better treatment in this case. He found after the patient's second confinement that she could never be delivered of a viable child *per vias naturales*. Though he preferred the cephalotribe to the cranioclast, he did not think that in cases of extreme pelvic deformity the cephalotribe applied to the fore-coming head was perfectly satisfactory. It did sometimes slip when used as a tractor. This was due, Dr. Donald believed, to tilting of the base of the skull. Again, rotation of the fore-coming head by means of the cephalotribe was often very difficult. The body of the child had never been much in the way in the cases where he had crushed the after-coming head. If the legs and trunk were drawn well up towards the mother's abdomen, there was no difficulty in passing the whole hand, or at least the four fingers, behind the child into the pelvic cavity, which in the flattened pelvis was relatively large. It was a positive advantage to be able to apply traction to the body so as to steady the head in perforating and crushing, and to assist in extracting. He had in one case adopted the method advocated by Drs. Gervis and William Duncan, performing version after perforating the vertex. Dr. Donald objected to this method because the base of the skull was undiminished, and also because splinters of bone and portions of connective tissue and brain-substance were liable to be left inside the uterus. He had only met with two cases in his experience in which, after deep anæsthesia, it seemed dangerous to attempt version. Treatment, however, must vary according to the special features of each case. If the lower segment of the uterus was found to be thinned out and retracted, the vertex should be perforated in preference to the advocated method.

GLASGOW SOUTHERN MEDICAL SOCIETY.

A MEETING of this Society was held on Thursday, Dec. 6th, T. F. Gilmour, L.R.C.P.Ed., in the chair.

Historical Sketch of the Society. — The CHAIRMAN announced that copies of the History of the Society, by John Dougall, M.D., which that gentleman had been commissioned to prepare, were now ready for distribution among the members. The little book contains a photograph of the late Dr. James Stewart, the first president, and a copy of the quaint original seal of the Society. The sketch is mainly compiled from the minute books, which record the chief items of the transactions of the Society since its origin in the year 1844. Much interesting information is given regarding the Society's origin, infancy, growth, and work, affording many glimpses of the state of medicine as practised in Glasgow nearly half a century ago. The extracts from the records by the original secretary, Dr. Leech, who usually signed himself "Hirudo Officinalis," show that he was a man of wit and humour, and did not confine himself to strictly business minutes. Dr. Dougall gives notices of the more prominent past members, and makes reference to the principal papers read on medical subjects, and also to the part which the Society has on various occasions played in relation to important questions affecting the profession and the public. One amusing passage in the booklet consists of a description in verse by one of the members of a picnic of the Society, and is entitled "A Medical Holiday." A list of the present office bearers and members is appended, the total number on the roll being 156.

Medical Characters in Fiction.—The SECRETARY (Dr. James Erskine, M.A.) read a paper on this subject, as an introduction to a discussion on it by the members. As representing the extent to which the treatment by bleeding was carried in olden times, Dr. Sangrado, in "Gil Blas," was selected. The medical men in Scott's works were passed under review, especially Dr. Quackleberry, in "St. Ronan's Well," and reference was made to the two doctors in Thackeray's writings—namely, the admirable and kind-hearted Dr. Goodenough, and the pretentious fraud, Dr. Firmin. Dr. Lydgate, in George Eliot's "Middlemarch," was noted as a man whose noble and unselfish nature was repressed and spoiled by a wife who cared only for material prosperity and luxury. R. S. Stevenson's Strange Case of Dr. Jekyll and Mr. Hyde was graphically represented, and the moral of the story considered. The medical characters of Shakspeare's "Macbeth," "Cymbeline," "King Lear," &c., received special comment. Sterne's "Tristram Shandy" and Smollett's "Roderick Random" were referred to, as also Trollope's Dr. Thorne, Dr. Day in Miss Yonge's "Daisy Chain," Mr. Woodcourt, Poor Jo's friend in Dickens's "Bleak House," and the medical personages in Charles Reade's "Hard Cash," Wilkie Collins's "Heart and Science," Mrs. Henry Wood's "Oswald Cray," James Payn's "Thicker than Water," Hawthorne's "Mosses from an Old Manse," and Cable's Dr. Servier. Rebecca in Scott's "Ivanhoe" was regarded as the prototype of the modern

medical woman, and "Dr. Breens' Practice," by W. D. Howells, was taken as an illustration of the lady practitioner of the present day. The nurses in fiction were discussed. Dickens's Mrs. Gamp and Mrs. Harris in "Martin Chuzzlewit" were looked upon as exaggerated caricatures of the evils of nursing as conducted in bygone times. The Little Sister in Thackeray's "Philip" was considered as a splendid type of the modern trained nurse, and the two nurses in "An Open Verdict," by Miss Braddon, and Sabina Zembra in William Black's novel of that name, were mentioned as examples of the kind of women introduced into the modern novel for the purpose of carrying out the love plot of the story.

Reviews and Notices of Books.

A Manual of Ophthalmic Practice. By CHARLES HIGGENS, F.R.C.S. Eng., Ophthalmic Surgeon to Guy's Hospital. Pp. 314. With 48 Illustrations. London: H. K. Lewis. 1888.

THIS is one of the numerous manuals which are issued by the teacher or teachers of ophthalmology in almost every large school of medicine as a guide to their own pupils, and which probably constitute a *précis* of the lectures that are given. Comparing one with the other, it will be found that these manuals possess a close general similarity, though, as might be expected, one or another subject to which the teacher has devoted special attention is elaborated to a greater extent than in other works of the same kind. Thus, one man will devote many pages to refraction, another to the description and treatment of the more common diseases, and another to the methods of operating. The volume before us is the work of a sound, practical surgeon, who has had considerable experience in teaching in one of the largest metropolitan hospitals, and who has balanced the several divisions of his subject very fairly, giving general views and avoiding the common error of too great minuteness of detail. The author presupposes a thorough practical knowledge of medicine in his readers, and we accordingly meet with such expressions as "Any constitutional treatment that may appear called for should be adopted," and "Attention should be paid to the patient's general health"; whilst in such a subject as nævus the usual surgical methods are mentioned without being described, which saves a large amount of reiteration and padding. Speaking generally, the statements made are accurate and the mode of treatment intelligently given. If fault were to be found, it is that the whole book is a little too concise, and that more space might have been devoted to various forms of disease, and a greater variety of methods of treatment might have been introduced. For example, in speaking of purulent ophthalmia in newly-born children, Mr. Higgens states that "the only treatment required is to wash out the eyes every hour or half-hour with equal parts of strong alum and boracic acid lotions until the discharge is lessened," whilst "some simple ointment should be applied to the margin of the lids once or twice a day to keep them from sticking together." Now, whilst quite approving of this practice, we think Mr. Higgens might have mentioned as an alternative treatment the use of a solution of perchloride of mercury in the strength of 1 to 5000, which is certainly extremely effective in arresting suppuration, and acts better than the boracic acid and alum in cases where peripheral ulceration of the cornea has commenced. In regard to the cause of purulent ophthalmia, Mr. Higgens refers it to contact with acrid vaginal secretion, but says nothing respecting the gonococcus, though the existence of that microbe may now be regarded as fairly established. He relies exclusively, in the case of children, upon a lotion of equal parts of strong alum and boracic acid solutions (the strength of which he does not give), which he recommends to be injected every half-hour or hour whilst the child is awake. So, again, in the case of glaucoma, we think that sufficient stress is not laid on the value of eserine as a means of treatment. Although it is undoubtedly mentioned, yet it is in so slight and incidental a manner that it might easily be overlooked by the student. Now there are many cases of a subacute form in which the systematic employment of eserine for some weeks will supersede the necessity for the performance of an operation, or at all events postpone it for a long period; and we hold, therefore, that the initial sentence of Mr. Higgens' remarks on the treatment of glaucoma, instead of being "glaucoma can be remedied by operation alone," should be "*acute* glaucoma can be remedied by operation alone." The terms "keratitis" and "corneitis" are interchanged in a manner rather confusing to the student. Thus on one page we have pustular corneitis described, and on the next fascicular keratitis. This is followed by keratitis punctata, and this again by an account of corneitis with sloughing or suppuration. Why not keep to the more correct term of keratitis? Mr. Higgens' views in regard to extraction of cataract are that this operation should be preceded by iridectomy either at the time or some weeks previously. He protects the eye after operation with two folds of lint kept constantly wetted with boracic acid lotion, and keeps it closed for a week. He altogether objects to the suction operation. He doubts whether operative interference by means of probes in cases of epiphora is calculated to improve the condition of the patient, and thinks the remedy is sometimes worse than the disease. Mr. Higgens entertains no doubt in regard to the existence of tobacco amaurosis, and we are inclined to agree with him that it often occurs in those who not only smoke but drink to excess. In the treatment, at all events, it is prudent to direct the patient to reduce his potations as well as the quantity of tobacco he consumes. We recommend the book to the perusal of the students in other schools besides the noble foundation to which the author belongs.

The Tongue as an Indication in Disease. By W. HOWSHIP DICKINSON, M.D., F.R.C.P. London: Longmans, Green, and Co. 1888.

WHEN Dr. Dickinson selected the Tongue as the topic of his Lumleian Lectures, much curiosity was felt as to the manner in which he would deal with so trite a subject, whilst at the same time it was one which had never hitherto been treated in a systematic manner. We all know how ably he fulfilled the task he undertook; how by reference to his wide clinical experience he was enabled to classify the various types of tongue met with in internal disease, and to analyse the diseases and conditions under which they occurred. The general result of his labours did not, however, lead to any very well defined conclusions; for one has only to glance through the tables under each heading to be convinced that a variety of conditions, local as well as systemic, co-operate in producing changes of the surface of the tongue; so that it is wellnigh impossible to go much beyond the hitherto well-accepted indications of dryness and moisture, coating and denudation, in the most general manner, or to attempt to associate many special types of lingual state with any particular disease or class of disease. Nevertheless, if only for this demonstration of the limitations to be set upon the interpretation of the clinical indications afforded by the time-honoured practice of looking at the tongue, Dr. Dickinson's work is of value. It is, however, equally valuable in the full and accurate histological description of the different conditions mentioned. In issuing these lectures in a separate form, Dr. Dickinson has prefixed an introduction, which is highly interesting. In this he surveys from the earliest

times the opinions expressed by medical authors upon his subject, and, as becomes a physician, he enters a protest against the too purely localistic doctrine of states of the tongue. There is enough evidence and to spare in the facts with which the Lumleian Lectures are stored to set against so limited a doctrine. The text is illustrated by numerous well-executed plates and engravings which demonstrate the anatomical changes of the lingual mucous membrane in most of the states met with; and although it may not be strictly true to say that the surface of the tongue is the index of the condition of the gastro-intestinal mucosa, it must be admitted that its characters are often evidence of the more or less severe changes in nutrition that involve other textures in systemic disease.

OUR LIBRARY TABLE.

Hygiène de la Vue. Par X. GALEZOWSKI and A. KOPFF. Pp. 328. With 44 Figures. Paris: Baillière. 1888.—This work, one of the authors of which is well known as an ophthalmic surgeon, contains the rules that should be adopted in the education of children, in the work of the adult, and in the failing vision of advancing age. It shows how myopia is developed, describes the symptoms of hypermetropia and astigmatism, and the mode in which these errors of refraction may be prevented, and prudently refrains from giving the precise means of correction. The influence of alcohol, tobacco, and opium is given, with that of cold, heat, natural and artificial illumination, and the hygiene of trades and professions. Lastly, the care and education of the blind are considered. The volume is one of the Bibliothèque Scientifique Contemporaine, which now forms quite a small library, and of which many volumes have been translated.

Animal Physiology. By WILLIAM S. FURNEAUX, Special Science Teacher. With 218 Illustrations. Pp. 243. London: Longmans. 1888.—This is a popular work intended to cover the ground occupied by the elementary syllabus of the Science and Art Department, and the statements made in the lessons we have read through are correct. It is not easy to see, however, why the title of the book should be "Animal Physiology," since the space is nearly equally occupied with anatomy and histology. It is well adapted for the upper classes in schools, and is better illustrated than most of the works of a similar description.

Ingwadi Yami, or Twenty Years' Experience in South Africa. By J. W. MATTHEWS, M.D., late Vice-President of the Legislative Council of South Africa. Pp. 542. London: Sampson Low and Co. 1887.—This is an interesting work giving an account of the Cape Colony for the last twenty years, and especially of the discovery of the diamond fields and their subsequent development and government. A chapter is devoted to an account of the Lunatic Hospital and the Refuge for Lepers on Robben Island. The description of the condition of the lepers "kennelled worse than dogs" is horrible, and certainly calls for inquiry and active interference on the part of Government. Dr. Matthews says: "The lepers were, as a rule, idle and insolent, and, knowing the incurable nature of their disease, reckless and desperate to a degree." He has a strong belief in the contagious character of leprosy, and left the island with the conviction that "nothing but complete segregation could stamp out this dreadful disease." In the thirty-six years from 1845 to 1883, there had been 744 lepers admitted into this asylum. The cost of each leper on Robben Island is £63 per annum. In 1855 the lunatic establishment was reported as "commodious, well arranged, and striking for its great cleanliness"; but it seems to have fallen off grievously, for the author, on a visit to it in 1881, says that although every kindness was still shown by the officials to the unfortunate lunatics, the surroundings were not such as would tend to their recovery. The buildings had an air of decay, the yards were overcrowded, and no employment or amusement was provided for the patients. Since then the Government has decided to remove the lunatic asylum to a farm on the mainland, near Cape Town, which has been bought for the purpose; "but at present the finances of the Colony are at too low an ebb to warrant further expenditure with a view to the introduction of any improved mode of treatment for these unfortunate people." The book contains a good deal of information respecting the difficulties experienced by medical men in establishing a practice at the Cape, and the hardships necessarily attendant upon the working of it in a sparsely populated and widely extended country.

Whitaker's Almanack, 1889.—This, the acknowledged prince of almanacks, now extends to 704 pages, and includes, for the first time, a return of the commissions given to men who have risen from the ranks since the abolition of purchase in the army; papers on educational progress; the new Local Government Act; marks on porcelain; uniform, badges, and rates of pay of all ranks and departments in the army; a complete list of the recipients of the Victoria Cross since its institution; a handy glossary of astronomical terms and facts. "Whitaker" has now become a necessity in every house of business and on almost every desk.

Dictionary of National Biography. Vol. XVII.: Edward—Erskine. London: Smith, Elder, and Co.—The seventeenth volume of this valuable Dictionary contains a very fair sketch of the life and work of John Elliotson, M.D., who, "in his desire to be original," was "led into many eccentricities." Also of Ebenezer Elliott, the Corn-law rhymer, whose verses had so large an effect in bringing about the abolition of the laws which operated in favour of dear food.

Hazell's Annual for 1889. A Cyclopædic Record of Men and Topics of the Day. Edited by E. D. PRICE, F.G.S. Hazell, Watson, and Viney, Long-acre. — This Annual contains more than 3500 brief explanatory articles on topics of current political, social, biographical, and general interest, referred to by the press and in common conversation. Of the utility of the work there cannot be a doubt, whilst its accuracy, so far as we can judge by a cursory review of its pages, appears satisfactory.

HEALTH OF THE LARGEST ENGLISH TOWNS IN 1888.

THE recorded death-rate during the fifty-two weeks of last year in the twenty-eight large English towns dealt with in the Registrar-General's Weekly Return averaged 19·2 per 1000 of the estimated population, and was 1·6 below the mean rate in 1887. The death-rate in England and Wales in 1887 was, as appears from the Annual Report recently issued, the lowest on record since the commencement of civil registration in 1837. Judged by the death-rate in the largest towns, it may undoubtedly be assumed that the English death-rate in 1888 was considerably lower than that recorded in 1887, which was 18·8 per 1000. We showed last week that the mean recorded death-rate in London last year was 18·5 per 1000; in the twenty-seven provincial towns dealt with in the weekly return the mean rate was 19·8, while in the several towns the recorded rates ranged from 16·1 in Brighton, 16·3 in Derby, and 16·4 in Hull, to 23·9 in Blackburn and in Preston, and 26·1 in Manchester. In order, however, to institute trustworthy comparison between the rates of mortality in these large towns, it is necessary to take due account of the wide variations in the proportional sex and age-distribution of their several populations. The age constitution of all urban populations is favourable to the death-rate, inasmuch as they contain, compared with rural populations, an excessive proportion living at the ages when the death-rate is low, and a low proportion living at the ages when the mortality is high. In order to correct for these differences of sex and age distri-

bution, the recorded rates have to be multiplied by a series of factors, which were published in the Registrar-General's Annual Summary for 1883. The effect of this correction is approximately to raise the recorded rates to what they would severally be if the sex and age-distribution in each town were the same as that which prevailed in the whole of England and Wales at the time of the last census. Thus corrected, the rates of mortality that prevailed in the twenty-eight large English towns during last year, ranged in order from the lowest, were as follows :—

Twenty-eight large towns.	Corrected death-rate.	Death-rate from the principal zymotic diseases.	Twenty-eight large towns.	Corrected death-rate.	Death-rate from the principal zymotic diseases.
Brighton ..	16·6	1·4	Halifax	21·1	1·2
Hull	16·9	1·2	Wolverhampton	21·3	2·4
Derby	17·0	1·8	Newcastle ..	21·3	1·5
Bristol	17·5	1·3	Leeds	22·0	2·7
Nottingham ..	18·3	2·1	Plymouth ..	22·2	1·8
Sunderland ..	18·8	1·4	Sheffield	22·2	3·6
Bradford ..	18·9	1·6	Cardiff	22·2	3·0
Birkenhead ..	19·0	1·6	Liverpool	22·4	2·5
Birmingham ..	19·0	2·0	Oldham	22·5	1·9
Leicester ..	19·2	2·5	Salford	23·0	3·6
Norwich	19·3	2·2	Bolton	23·7	2·8
Portsmouth ..	19·4	1·7	Blackburn ..	26·0	4·1
London	19.6	2·5	Preston	26·0	3·1
Huddersfield	20·3	1·5	Manchester ..	29·1	3·2

It will be observed that the effect of this correction does not very materially alter the position of the individual towns, for the same three towns appear at the head of the list, and the same three towns at the bottom of the list, whether the recorded or the corrected rates be used for the purpose. Each of the rates, however, except those for Norwich and Plymouth, are raised in various degrees by the correction; the rates in Norwich and Plymouth are reduced by the correction, because the age and sex proportions of these populations are less favourable to the death-rate than the proportions of the population in the whole of England and Wales. In dealing with the rates of mortality in these large towns, the uncertainty involved in estimating their present populations so long after the last census enumeration should not be lost sight of. It is more than probable that, generally speaking, the population of our large towns has not increased at the same rate as it did between 1871 and 1881, upon which hypothesis the estimates adopted by the Registrar-General are based. This element of uncertainty is recognised by the Registrar-General, who notes in his Weekly Return that, owing to doubtfully accurate estimates of population, the death-rates of Leicester, Salford, and Bradford (to which may probably be added Bristol and some others) are understated, while those of Newcastle-upon-Tyne and Cardiff are probably overstated. This disturbing element will not, however, explain the noteworthy fact that the whole of the seven Lancashire towns appear at the bottom of the above list, or the excessively high rates in Blackburn, Preston, and Manchester. The last-mentioned two towns have appeared at the bottom of the list for each of the last five years. It is shown in the above table that the zymotic death-rate in these towns last year, although it did not follow precisely the order of the death-rate from all causes, maintained a general agreement therewith; it ranged from 1·2 and 1·3 in Hull and Bristol, to 3·6 in Sheffield and Salford and 4·1 in Blackburn. The general improvement in the health of these towns, which has been so marked in recent years, was still more striking in 1888; the reduction in the zymotic death-rate was, however, in some measure due to the low death-rate from infantile diarrhœa, caused by low temperature and abundant rain during last summer.

THE ROYAL ACADEMY WINTER EXHIBITION.

THE usual Winter Exhibition at Burlington House was opened to the public on Monday last. This year, however, the old masters are very much in a minority. There is not a single Italian picture, Spain and Germany are unrepresented, and no work earlier than the seventeenth century is shown. There is a magnificent series of Rembrandts, and a collection of French pictures of the last century by Watteau and Lancret, interesting from their comparative novelty as well as their merits.

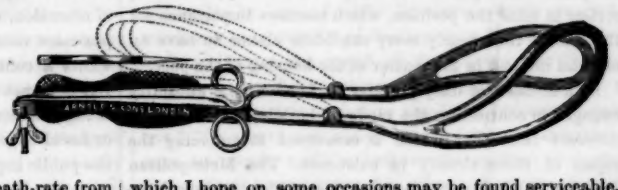
It is consequently on deceased masters of the British school that the Academy mainly depends. There are some fine Romneys and Gainsboroughs, but even here most works are of a later date than those usually shown in this Exhibition. The water-colour room is again filled with Turner's work, chiefly with a series of fifty drawings on grey paper done on the Rhine in a fortnight in 1819. Leslie and Etty and Egg are the chief representatives of the later period, but the selection hardly does these artists justice.

So far the Exhibition is below the average, but it is chiefly in the last two rooms that the public will be found, before the pictures of the late Mr. Frank Holl. It is hard to realise that the hundred and eighty portraits, of which thirty are here exhibited, were all executed within the last twelve years, a period which won for the painter a place among the greatest names of English art, the security of which this collection definitely affirms. There are also twenty-four subject pictures by the artist, most of which, however, date before 1878, the turning point of his career, the year when he seems first to have gained the power of adequately expressing himself. It is to be regretted that the portrait of Mr. Samuel Cousins—his epoch-making portrait—is not here; neither is that of Sir William Jenner, perhaps his last and greatest achievement. But the portrait of Earl Spencer, which divided the honours with the last picture, is exhibited, and so are the likenesses of Sir George Trevelyan and Lord Dufferin, the Duke of Cleveland and Vice-Chancellor Bacon. Of course, Mr. Holl's range was limited; sprightliness and charm were not his, nor was he a born colourist. But he had all the qualities necessary to render the English gentleman of his own day. He had directness and insight, he was not monotonous, and his appreciation of subtlety was increasing (notice the hands of all his portraits, all characteristic and all different); he was original, and he was essentially English. Thus, dying at forty-three, he is one more of those early losses of which English art has had so many, and a loss which there is no one exactly to make good.

New Inventions.

MIDWIFERY FORCEPS.

I AM desirous of bringing to the notice of the profession the instrument here illustrated. The forceps is a long one, with cradle hinges folding on the handles, admirably adapted for pocket use, measuring in length 8¼ in. by 3½ in. I have adopted rings instead of crutches. During traction the handles are kept in apposition by a winged screw, obviating the necessity of using tape. I have had inserted into one of the handles an instrument for rupturing the membranes,



which I hope on some occasions may be found serviceable. A portable forceps must certainly prove a boon, at least to the country practitioner, who has, no doubt, like myself, found himself seated, perhaps, on a restive horse, with a long forceps dangling against its sides, on a dark night and on a dangerous road. Messrs. Arnold and Sons are the makers of the forceps.

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MEDICAL MAGISTRATE.—Mr. Henry Barnes, M.D. Edin., M.R.C.S. Eng., of Carlisle, has been added to the Commission of the Peace for the county of Cumberland.

THE LANCET.

LONDON: SATURDAY, JANUARY 12, 1889.

THE daily journals now teem with information concerning the coming elections of the County Councils, the outcome of the great measure of local self-government which Mr. RITCHIE safely piloted through the House of Commons in the past summer. In a few weeks it will be known whether the authorities which will come into existence will be worthy to undertake the responsible duties which Parliament has conferred upon them. In the country there is every expectation that gentlemen who as justices of the peace have admittedly administered county business in an economic and efficient manner will take a large share of the work which will come before the County Council; in London it is less easy to foretell the result of the coming struggle.

For more than thirty years the government of London has been in the hands of the Vestries and District Boards and their representatives on the Metropolitan Board of Works. A strong feeling of dissatisfaction has grown against the administration of these authorities, and has doubtless made more welcome the dissolution of the latter body, and the constitution of a new one directly elected by the ratepayers. So much is hoped from the London County Council that already its powers and responsibilities are matters of discussion in the daily press. The subject which appears to excite the greatest interest is that of the housing of the poor, which has long been felt to reflect on metropolitan administration. At the time we write, letters expressing different views as to the opportunity the new County Council will possess for remedying this evil are published in *The Times* from Mr. JOHN HAMER, the honorary secretary of the Mansion House Council on the Dwellings of the People, and Mr. CHANCE of the Temple. In effect both correspondents are correct in their statements, although they regard the subject from different standpoints. While Mr. CHANCE considers the powers of the County Council to be very great, Mr. HAMER argues that the control is altogether inadequate. We may conveniently, therefore, review in brief the position, which assumes importance for the reason that nearly every candidate claims to have an especial interest in the matter of the housing of the poor.

By a division of duty peculiar to London, the authority engaged in controlling the mode of building new houses is different from that which is concerned in enforcing the repair of those already in existence. The Metropolitan Board of Works, upon whom devolves the former duty, have further the right to interfere where houses can be regarded as dangerous structures, and, by a comparatively recent Act, those which are so dilapidated as to be unfit for occupation. Under the latter Act, it is not clear at what point the authority should intervene to require the demolition or repair of these neglected structures. Custom must eventually decide this question, but hitherto it appears that this power has been inoperative, the Metropolitan Board of Works not having concerned itself to distinguish between neglected and dangerous, and leaving everything to the initiative of a surveyor, who is discouraged from the performance of his duty by having thrown upon him all the burden of prosecution. It is obvious, too, that the roof which is not water-tight, the broken floor, and the crumbling plaster found in too many houses could only be detected by something equivalent to a house-to-house inspection, and this has not hitherto been regarded as coming within the province of the Metropolitan Board of Works. Assuming that the County Council should attempt to exercise control over these conditions, an army of inspectors would be required, which would entail heavy cost upon the metropolis.

The duty of enforcing repairs of the kind indicated now falls upon the Vestries and District Boards, the authorities in whom Mr. HAMER places so little confidence. Their powers under the Metropolis Local Management Act and the Nuisance Removal and Sanitary Acts are considerable, and these are further supplemented by the opportunity Torrens's Act gives for requiring houses to be demolished or amended in accordance with a specification prepared by their surveyor. But the accusation which is brought against them is neglect, and over this neglect the Metropolitan Board of Works can exercise no control. It is true that offended ratepayers can make representation to the latter Board when the neglect relates to enforcement of Torrens's Act, and to the Secretary of State when the last two Acts are concerned; but ratepayers in London are not offended, or, if they are, have no knowledge of what the wisdom of Parliament has provided for them. The County Council, in inheriting the position of the Metropolitan Board of Works, will, we fear, be in a not much more favourable position to undertake the duty which should devolve upon it through default of the action of the Vestry or District Board.

The provision of the new Local Government Act, which permits the County Council to represent to the Local Government Board any evidence of neglect of an authority that may be found in the periodical report of a medical officer of health, is another of the well-intentioned efforts of the Legislature that lead to no practical result in London. Until the appointment of medical officers of health is completely vested in the County Council, and until all reports, whether occasional or periodic, are thought to be deserving of attention, the power of interference which this authority possesses cannot be anticipated. London, therefore, still wants a controlling power which the Local Government Act does not provide. Mr. HAMER'S desire to see London brought under a system of inspection by the Home Office or Local Government Board has already been suggested by the public inquiries which have been held under instructions from the Home Secretary in accordance with the recommendations of the Royal Commission on the Housing of the Working Classes. He would evidently propose that these inquiries should be replaced by systematic inspection similar to that now made in the country by the medical inspectors of the Local Government Board. It is quite possible that this is intended by the Government, for no powers of this kind are given to the County Council, and certainly London, with its five million of inhabitants, requires supervision more than smaller towns.

It can only be matter for speculation whether Lord

Shaftesbury's Acts will in the future be put in force; while there is every desire to see better accommodation erected for the poorer classes, many would urge that it is matter for serious consideration whether this duty should be undertaken by a local authority. They would point out that if a beginning is attempted it is not easy to see where it will terminate, and local administration is not yet so pure as to prevent the growth of a system which has been but recently condemned by Lord HERSCHELL'S Commission. Moreover, it will doubtless be further argued that a departure from the principle that any class of the community should be specially favoured by the use of public funds, is itself fraught with danger. London, however, may well settle this problem for itself, if in the future it should be shown that a continued interest is taken in the return of trustworthy councillors to manage its affairs.

THE *Manchester Guardian* of the 27th ult. contains a report of the Annual County Sessions of Lancashire, under the presidency of Lord DERBY, whereat the question of the pension to which the superintendent of a lunatic asylum may fairly be entitled came up for discussion. The visiting justices of Rainhill Asylum submitted a recommendation that Dr. ROGERS, the superintendent of that asylum, should be granted a pension of £800 a year on retirement after a service of thirty years in that capacity, in addition to nearly two years as a junior medical officer. This sum was objected to by a local board of guardians as being too large under the circumstances. An amendment, proposing to refer the question to the new County Council was lost, as also were amendments proposing to reduce the pension to £500 and to £600. The original proposal was also negatived, and the matter was left *in nubibus*. A great deal was made at the meeting of what the ratepayers, the voters, and the "Toms, Dicks, and Harrys" would say to a pension of £800; but we contend that these are the very people who have the best reason to deal on a just and not illiberal footing with an old servant who, by his unquestioned efficiency of administration, has been the means of saving their pockets during a period of thirty years by a careful disbursement on their behalf of large sums of money practically entrusted to him. If to this be added the social and domestic benefit and comfort resulting from the skilful treatment of relatives, dependants, and neighbours at the hands of a well-qualified superintendent, it will at once be seen that the moral obligation on the part of the ratepayers is one that cannot equitably be left out of account. It has to be remembered that the large proportion of the ratepayers are those whose homes are most largely relieved by the asylum in regard of the thousands upon thousands of mental sufferers whose distressful cases have been dealt with by Dr. ROGERS during his long tenure of office; and it is they who have been most largely benefited in a pecuniary sense also. We scarcely think, therefore, that, if the matter were put to the ratepayers in this broad and true aspect, they would be disposed to be ungenerous or niggardly in making provision for the future of one who had worn himself out in their service.

But there are other considerations to which, in justice, weight must be given in the case of Dr. ROGERS, as in the case of all asylum superintendents. The ratepayers have their rights, but so undoubtedly has the superintendent. Lord DERBY put this very sagaciously to the meeting. His lordship, after pointing out that to keep in their own hands a matter which was eminently for the Court to decide was showing no distrust of the new County Council which was about to be constituted, went on to say that it was "not a question of the future, but of the past. Any question of what ought to be done with services which were to be rendered, might fairly be reserved to their successors; but when it came to a question of compensating services which had been rendered during the past thirty or thirty-five years, when those services had been rendered, perhaps not to them, but to the public under their supervision, they were the persons qualified, the only persons qualified, to express authoritatively their opinion as to the value of their services. In the past they had invariably granted pensions under similar circumstances. It was, of course, quite open for anyone to argue that the system of compensation was a bad one; but when a man had undertaken a duty in the expectation that he would receive a pension, it seemed to him (his lordship) that he had some right to it; and, therefore, they who had been his employers were the persons who ought to see that he got what was due to him."

Now, the existing Lunacy Acts provide that a superintendent at fifty years of age and after fifteen years' service may be granted an annuity by way of superannuation not exceeding two-thirds of his salary, if the Committee of Visitors in their discretion think fit so to do, regard being had to the merits and time of service of such superintendent. Dr. ROGERS is sixty years of age, and he has served over thirty years. The value of his appointment was £1250 annually, and the committee had a strong case in recommending him for a pension of £800. Only those, such as an asylum committee, who know what the wear and tear of a superintendent's life mean can estimate the value of the work done by him; and their recommendation ought not lightly to be put aside. The successful administration of a lunatic asylum means much more than appears on the surface. The superintendent, apart from his professional responsibilities, which are of a special character, and which, day by day and night by night, actively occupy his mind, has to be capable of dealing in a business-like way with an increasing round of disciplinary and financial duties connected with the domestic and official life of an asylum such as seldom fall to the lot of one man to carry out. We regard the money value of his appointment as none too much, and the bulk of the medical profession, seeing their opportunity for success in more congenial fields of work, would think twice before undertaking the duties at far higher remuneration. Incapable officers would be willing to try their hand at it for less pay. A man who has the brains to make him a good superintendent might reasonably expect to have been successful in the more remunerative walks of medical life. But, having devoted himself to asylum work, he makes the well-being of the asylum and of its inmates his life's work, and in this way the efficient and conscientious superintendent becomes a real economy and a boon. He is therefore well

worthy of his hire, and the least his employers can do is to keep faith with him.

The public have no reason to be dissatisfied with the progress made during the past fifty years in ameliorating the position of the insane members of the community, whether at large or in asylums; and the strain of responsibility in bringing about this satisfactory state of things rests undoubtedly with the asylum superintendents, many of whom have given way under it. We would advise the ratepayers to think well before they lend themselves to the encouragement of a phantom economy which would lead them to strain at the gnat of due recompense for old and faithful service, and to swallow the camel of inefficiency with unhusbanded resources and wasteful expenditure in its train.

SELDOM has the bearing of bacteriological facts on the practice of preventive medicine been more clearly stated than it was by Professor KOCH, the leader of the "new school," in a speech (lately published *in extenso*)[1] delivered last August on Foundation Day at the College of Military Medicine. It is well worth perusal, for it brings home to us the lessons that need to be learned respecting the place and value of sanitary measures, not only among armies in the field, but also in civil life. No one could read such a medical history as that reviewed in our columns of last week without feeling the need for such measures to mitigate the severity of epidemic disease, which so often ravages an army in time of war. Professor KOCH opened his address by some allusions to the mortality among troops so engaged. In time of peace he said these infective diseases slink covertly among an army and leave their mark, but in time of war they boldly show their front, and deal destruction around them, decimate proud armies, and determine the fate of nations. Thus the mortality of the Prussian Army in peace is 5·7 per cent., of which 3·59 per cent., or two-thirds, is due to infective disease—as typhoid, dysentery, pneumonia, tuberculosis. During the war of 1870-71 the mortality rose to 18·0 per cent., with 16·5 per cent. due to such diseases—a mortality far less than occurred in former campaigns, a diminution owing in part to improved sanitary measures, in part to the fortunate absence of typhus and cholera. For in former times deaths from disease during campaigns averaged six times the number of those killed in battle; and the story of NAPOLEON'S disastrous Russian campaign tells of far greater decimation than that. In the brief Danish war of 1866 the Prussian troops lost 5235 in battle and 6427 from disease—almost wholly cholera. The lesson of the Crimean war went to show, in a greatly diminished mortality among the English forces in the second winter as compared with that of the French, that the medical staff of the former were able to act energetically in taking measures to prevent epidemics untrammelled by rules such as tied the hands of the French surgeons. But efficacious as were these measures, reducing the mortality from disease amongst the English forces from 1761 in the first winter to 551 in the second, they were mostly empirical and complicated, and were based on incorrect notions of the nature of infective disease. The conditions have now changed. Not only are many diseases now ranked as "infective" which were not then so regarded, but each disease has its etiological peculiarities, and demands therefore a prophylaxis special to itself. The general prophylactic measures based upon present knowledge of the nature of infection formed the main topic of Professor KOCH'S remarks.

In the first place, the virus (*infektionsstoffe*) of such disease is an organised body—a micro-organism. Even in diseases where this has not yet been proved, the conditions are so similar to those in which it has been determined that we are entitled to rank infective disease among parasitic affections. Pathogenic microbes, like other micro-organisms, never arise spontaneously, but only from pre-existing germs. There is no reason to believe that any transition from non-pathogenic to pathogenic forms has taken place; at least, in historical times. Infective diseases are therefore no longer to be regarded as dependent on volatile gaseous matters or miasms, but upon solid, dust-like particles. So that measures aimed against the development of volatile products are useless to extinguish such disease. This consideration leads to the further conclusion that dirt, overcrowding, hunger, in a word "social misery," do not suffice to generate such diseases. Such misery is always with us, but epidemics arise only when the specific virus is present. Further, the doctrine excludes the possibility of the development of one disease from another—e.g., typhus from other fevers, dysentery from other intestinal affections, and so on.

The next point to consider is the relation of the virus to soil, air, and water. Many pathogenic microbes can exist in the dried state, others rapidly perish when dried, whilst moisture is essential for their multiplication and development. From the moist pabulum they may be scattered in the air, adhering to dust particles. This dust is not so very impalpable, and in still air or even in gentle currents it falls to the ground. Air, therefore, contains much fewer microbes than water, and is thus a less favourable medium for the spread of infective material than fluids, especially as air distributes mostly only those microbes that can exist in the dry state. As to soil, its surface, if moist, favours the development of micro-organisms, but at no great depth the soil is free from them, since the temperature decreases, whilst the layers above constitute a true filtering medium. The application of these facts to practical hygiene is simple. As to the atmosphere, if possible the infective material should be prevented from passing into the dry state, or if this cannot be avoided the air should be so free as to dilute the infected dust it contains, and render the opportunity of infection very slight. Hence the reason for free ventilation in dealing with these diseases, not because it purifies the air of noxious gases and exhalations, which in this regard hold a secondary place. Especially is this true of such diseases as typhus, the virus of which is apparently only disseminated in the form of dust. The English experience in the Crimea strikingly confirms this view. As to soil, if dry it is not dangerous, although it may have decomposing material on it; whereas if damp, but apparently pure, it may provide a nidus for the pathogenic organisms. The deeper parts of certain soils, which do not permit of filtration, may thus also become infected. All hypotheses based on the level and movements of subsoil water may be disregarded, or upon the germs being contained in the air of the soil, provided

[1] Die Bekämpfung der Infektionskrankheiten, insbesondere der Kriegsseuchen. Berlin: Hirschwald. 1888.

that this is such as to form a filter. The virus may be conveyed from the surface of a damp soil into dwellings by adhering to the feet, or may be washed off into streams and conduits, or may be carried into the air as dust. Water contaminated by these germs is a great source of disease, owing to the facility with which it is brought into contact with human beings; and the relative freedom from such impurities of well water or water which has filtered through sand, compared with that which is exposed to the air, or to contamination from the surface of soil, or from excreta, &c., needs no exposition.

Again, some microbes require such environment as to temperature, nutriment, &c., as they can only obtain in the living body. They are true parasites, and can only be spread by immediate contact or through aerial dust; they have no relation either to soil or to water; but others can flourish outside the body—some more in water, others more in soil. Some enter the body by way of the alimentary canal, and in their case there is no fear of infection by contact (contagion) or inoculation through wounds; but rather by food and water. Others, again, only infect through abraded surfaces, or by the respiratory tract. There are also differences in their relations to the "bearers" of contagion—e.g., clothes, linen, water, food, &c. Hence it follows that various measures are essential in various diseases. Some are general, and applicable to all. Contagion must be avoided by preventing too great a massing of individuals; free ventilation and ample cubic space, especially in sleeping quarters, is thus of great importance. The surface soil should be dry, and all infective material removed from the surface buried at a sufficient depth. The use of impermeable conduits, the filtration of water, or the use of boiled water, are well-known precautions, not so much to get rid of organic matter as to separate or destroy the organised microbe. Like measures are to be taken to prevent the contamination of food of all kinds, especially milk. If in spite of these prophylactic measures infective disease do break out, the recognition and isolation of the very first case is all important. This recognition can be made with certainty in some diseases, and it is hoped it will be so in time with others, but the bacteriological test must be applied. Isolation must be carried out, even if a change of site be needed; and this is one of the difficulties which the army medical officer has to contend with. Then all infected material must be destroyed, the simplest way being by fire. Clothes may be disinfected by steam, excreta by carbolic acid or lime. The frequent use of disinfectants for cleansing the convalescent, and their use by the medical attendants and nurses, are essential. In such diseases as cholera, dysentery, and typhoid, the measures are to be directed to purify the water and ensure dryness of soil; in such as typhus, to purify the air and to ensure free disinfection. If the disease is so fixed in a place that it cannot be uprooted by such means, then a change of locality, often to a very short distance, may effect its disappearance. Lastly, Professor KOCH alluded to vaccination, so absolutely prophylactic of small-pox as to render other measures superfluous, of which the last war showed striking evidence, and he spoke of the possibility of a like practice being one day available in other diseases. The conclusion to which his address led was to impress his hearers with the importance of army medical officers being trained in bacteriological methods, and to this end the recent establishment in the Military Medical College of classes for the study of these subjects was highly commended by him. It is, however, not only in the army that such knowledge would be of service. There is a simplicity and directness in the new methods of warfare against epidemic disease that must overcome all opposition to the acceptation of the view that such disease depends on organised virus. The development which scientific hygiene has taken in Germany, largely owing to Professor KOCH, makes us wonder how long it will be before we shall see in this country as much attention paid to this side of sanitation, commensurate with our progress in practical directions.

THE enormous loss of infantile life, especially in our large manufacturing centres, is rightly attracting the serious attention of many able social economists. If it be true that "the death of a child is an unnatural event," it is clearly the duty of someone or some body to investigate and endeavour to find some remedy for this blot upon our nineteenth century civilisation. The factors at work in producing this modern slaughter of the innocents—for so it may in all soberness be designated, seeing that it reaches in some places to a rate of 200 a year for every 1000 born—are known to be numerous and complex; but lately considerable prominence has been given to one of these, or what is asserted to be one of the causes thus at work—i.e., the insurance of infant lives in the various friendly and industrial insurance societies. In the report, so far as it is yet published, of the Parliamentary Select Committee on Friendly Societies, some striking facts were brought out in connexion with certain of these offices; and in the columns of a northern contemporary, the *Manchester Guardian*, the subject has been prominently brought before the notice of the public; while reports have also been issued by the Societies for the Prevention of Cruelty to Children in Liverpool and in Manchester, giving details of insurances in connexion with infantile deaths, which deserve more than a passing notice. Thrift on the part of the working classes, in whatever way it manifests itself, is not to be discouraged, and the original object of providing for an always possible event, the death of a child and the expense connected with its decent burial, is a good one; but it is to be feared, and in many cases ample evidence is forthcoming, that this legitimate aim has in the minds of careless and heartless parents developed a cupidity which comes to look upon the death of a child as at once the riddance of a burden and a means of obtaining a small sum of ready money. It should, however, be stated that exact statistics and data are not at present available to show to what extent this abuse of a good object has attained. What is wanted is that a comparison could be made of the death-rate of infants or children (under three years of age) of the working-class population whose lives are not insured with those of the same class who have had insurances effected upon them. But information of a useful character might easily be obtained by medical officers of health and others who have to do with local vital statistics as to the insurance of all children dying in their districts, and these again might with little trouble be divided into the deaths of legitimate

and illegitimate children. Already this is being done in some places, but sufficient time has not yet elapsed to draw conclusions therefrom. That a *prima-facie* case has been made out the following extracts from the reports alluded to will show. Thus in the Manchester report it is stated that during the three years ending 1887, inquests were held on 882 children, of whom 452 had their lives insured. During the year ending September, 1887, inquests were held on 311 children, of whom 157 were insured, and of these 95 were infants under one year of age found dead in bed. Inquiry in the first quarter of the present year shows that of the first fifty cases of sudden death of children 31 were insured, or more than 60 per cent., the sums received varying from £7 10*s.* to 7*s.* 6*d.* Twenty-two per cent. of these fifty cases of "found dead" happened early on Sunday morning, "probably as the result of Saturday's drinking." The returns from Liverpool, though not giving such full particulars, show that 700 children were reported as "suffocated" in the five years ending 1886. Considerable difficulty wa experienced here in getting information as to insurance, but out of 100 deaths where inquiries were made it would appear that at least 28 per cent. were insured. It is alleged by some persons that the Societies and offices who take up this infantile insurance business are not without blame, and are, in fact, almost accessories to this destruction of human life; but it is difficult to see how any properly conducted Society can gain—rather, it would seem, has much to lose—by the deaths of those insured with them. Indeed, the more reputable—such as the Royal Liver and Prudential Association Societies—have adduced evidence showing that this branch of their business is as carefully and well conducted as any other part of their work; but unfortunately there exist other societies, notably found in full activity in the manufacturing towns of the north, which do business with the lowest and most thriftless classes, and which, for the payment of ½*d.* or 1*d.* a week, offer as much as £5 at death. As was shown in evidence before the Select Committee, these often become insolvent, and in no case is there any proper security for their solvency or investigation. Their agents or collectors are numerous, and as these are paid by a percentage on their collections, stated to be as high as from 20 to 40 per cent., their only object is to collect as many pennies as possible. But can no remedy be found by which the good that exists in insurances of this description may be separated from the evil? Total prohibition of infantile insurance, as suggested by some, is a crude but effectual way of solving the problem; but no one would suggest that, because there have been in the past, and will again be in the future, murders committed for the sake of an insurance policy on an adult life, therefore all life insurances ought to be prohibited. There is, however, undoubtedly much to be said for prohibiting insurance on the lives of children under two years of age. Doubtless, when the Select Committee resumes its sittings, suggestions will be made to cope with the evil, and amongst them the following or like ones might find a place. Thus the highest total amount to be received on the death of a child under three years of age should be reduced from the present legal limit of £6 to 50*s.* The tendency of the time is to minimise all unnecessary expenses of funerals, and the above sum would furnish sufficient to ensure a decent interment for a babe. Or no insurance money should be allowed to be paid by any society or agent, either as a gratuity or under any other name, without a certificate from the registrar, such certificate to be returned to the registrar with the amount paid endorsed thereon; this would prevent multiple insurances, and secure that in every case the total amount received would be accurately known and recorded. Or, possibly, a still better method would be some arrangement whereby the insurance societies should be forbidden to pay any money *in cash* to the friends, but should defray funeral expenses to the amount insured. And lastly, and this is perhaps the most important, power might with advantage be given to coroners holding inquests on little children's deaths, where clear evidence was adduced showing moral culpability if not legal guilt on the part of parents in the neglect of their little ones, whereby they contributed to bring about the death, to issue such directions with their certificates for burial which would prohibit *any money whatever being paid on such death.* By these or similar measures the evils which appear to have become connected with what in its inception was commendable and right might to a great extent be done away with, and infantile insurance be eliminated from among the many causes that contribute to the mortality of little children.

Annotations.

"Ne quid nimis."

ROYAL COLLEGE OF PHYSICIANS.

A COMITIA of the College of Physicians took place on the 9th inst., the President (Sir Andrew Clark, Bart.) in the chair. At the commencement of the proceedings, the President stated that, on the invitation of the Royal College of Physicians of Edinburgh, he and the Treasurer had attended a dinner given by that College, and he spoke in high terms of the cordial reception they had met with. He also stated that he had been invited, as President of the College, to act, in conjunction with the President of the Medical Council and the President of the College of Surgeons, as an almoner of the Medical Fund founded by the Proprietors of THE LANCET to relieve cases of urgent distress among members of the medical profession. The College unanimously approved of its President assuming this position, provided that the other almoners mentioned also accepted. A communication was read from the Medical Board of New South Wales, warning the College that an impostor, who had for some years passed in the colony as a qualified physician by means of producing the diplomas of a well-known physician in Rome and passing them off as his own, had been detected, and had suddenly left the colony. A communication from the Colonial Office, enclosing reports on the contagiousness of leprosy was referred to the committee formerly appointed to report on the subject. The committee was therefore reappointed, consisting of Sir R. Bennett, Sir Dyce Duckworth, Sir Joseph Fayrer, Dr. H. Jones, Dr. R. Liveing, and Dr. Stone. A communication was read from the Church of England Purity Society, drawing attention to the evils attending the dissemination of leaflets on "secret diseases" by professed medical men, and a suitable reply was directed to be sent. Reports were read from the Solicitor and Architect of the College in reference to an injunction which had been obtained against the two Colleges from proceeding further with the new

buildings on the Embankment. On the motion of the Senior Censor, the matter was referred to a committee, consisting of the Registrar, Treasurer, Senior Censor, and Dr. Wood, to confer with a like number of members appointed by the Council of the College of Surgeons as to what modifications might be made in the plan of the buildings. A report from the Committee of Management recommending that the possessor of the diploma in Public Health should be described as "Diplomate in Public Health, England" (D.P.H. Eng.) gave rise to some discussion, in the course of which it was pointed out that the University of Cambridge had granted that title (D.P.H.) to holders of its Sanitary Science certificate. The alternative title of "Licentiate in Public Health" was proposed, but the proposal was not seconded, and the College adopted the suggestion of the committee. The revised schedule of drugs relating to the examination in Materia Medica and Pharmacy, as presented by the Committee of Management, was adopted. The reports of the Examination in Public Health was read. Eighteen candidates passed the first examination; ten passed the second examination and were granted the diploma. A communication was read from the Metropolitan Asylums Board, asking the College whether it would be desirable to appoint clinical assistants to the imbecile asylums under the charge of the Board; and it was resolved, on the motion of Dr. Seaton, seconded by Dr. S. West, that it would be desirable to make such appointments of duly qualified clinical assistants. Dr. Seaton gave notice that at the next meeting he would move a resolution in somewhat similar terms in regard to the fever asylums under the control of the Board.

THE BIRMINGHAM INFIRMARY.

OUR recent article on the Birmingham Infirmary has called forth numerous letters which have appeared in the local press. The medical staff do not hesitate to justify the arrangements which have been made; while an anonymous writer, under the *nom de plume* of "A Sympathiser," strongly supports our contention that the infirmary is too large and the staff too small. Another anonymous writer—"Fairplay"—asks: "Does THE LANCET know that under the present efficient system of nurse training, the head nurses are so well trained as to understand, and practically manage, all kinds of dressings, bandages, injections, urine testings, and so forth? Does it further understand that these same head nurses are women of observation and experience, and can by their preliminary investigations materially aid and facilitate the doctor's diagnosis; and that they are also supposed and expected to use their powers of observation and experience by bringing under the doctor's notice the patients under their charge whose symptoms have changed, or whom, they think, need further or different treatment?" In reply, we have to observe that we have suspected that this would be the outcome of the treatment of patients in the Birmingham Infirmary. Patients must inevitably be left to nurses, who, no doubt to the best of their ability, will endeavour to replace medical care; but it is not right or proper that these poor people should be dependent even on a skilled nurse for much of the observation of the kind indicated. It should devolve upon a medical officer, and not upon a nurse. The same correspondent asks: "Is the queston one altogether belonging to medical prudence, or has it not to be considered as part of Poor-law administration?" From our point of view, the two should not be divorced; Poor-law administration, especially of institutions for the sick, must be abundantly guided by those who alone are able to decide as to the requirements of sick people. The Local Government Board, in their apparent abandonment of the medical inspection of Poor-law institutions, have set an unfortunate example of exclusion of medical thought, which is not unlikely to be followed by local bodies having immediate charge of the poor. We read in an editorial article, published in the same journal as that containing the letters referred to, that the magnitude of the infirmary is necessarily a matter of opinion, "and as all the arrangements—the size, and number of patients provided for, included—have been settled with the concurrence of the Local Government Board, the guardians may confidently set the judgment of their official supervisors against that of THE LANCET." It is not within our province to explain the action of the Local Government Board, nor is it within our ability to reconcile the approval of this enormous institution with the expressed opinion of that Board, that "no single infirmary should, as a rule, be arranged for more than from 500 to 600 patients." We can only assume that the thought which obtains in Birmingham is also held in London, that this is not a matter of "medical prudence," but one of "Poor-law administration"—such administration, indeed, as appears now to be regarded as sufficient for the sick poor.

STATISTICS OF OPERATIONS ON THE GALL BLADDER.

DR. A. DEPAGE, in the course of a paper upon Surgical Intervention in Biliary Lithiasis (*Journ. de Méd. Brux.*, 1888, No. 24), says that up to the present there have been 78 cholecystotomies performed. Of these operations, 6 were done according to the method of Spencer Wells, 72 with suture of the gall bladder to the abdominal wall. Of the first-named series, 3 died from acute peritonitis, 1 cured case was followed by recurrence, and 2 cases were completely cured. Of the second series there were 11 deaths, 5 from hæmorrhage and collapse, 2 from biliary retention, 2 from effusion of bile into the peritoneum, and 2 from undetermined cause; there were also 4 deaths from secondary complications. Amongst the "cures" are 24 cases of biliary fistula, some permanent. The number of cholecystectomies has been 22, with 2 deaths from obstruction of the bile duct, and 1 after recovery from the operation from a cause independent of biliary lithiasis. Thus in cholecystotomy with suture of the gall bladder, and its return free into the abdominal cavity, a mortality of 50 per cent. resulted; in cholecystotomy with suture of the bladder to the parietes, 15·27 per cent.; and in cholecystectomy, 9·99 per cent.; and as the last-named figure comprises the two cases of permanent occlusion of the common bile duct, the result, if they be excluded, is to greatly enhance the position of cholecystectomy as an operation to be preferred to cholecystotomy.

SPECIALISTS AND CHEMISTS.

MOST of our readers will remember the vigorous efforts made a few months ago to introduce that most objectionable novelty, a Specialists' Directory. Little has been heard of this of late, so it may be hoped that wiser counsels have prevailed, and that the project has been abandoned. An attempt to obtain notoriety has lately been made upon the same lines. A chemist's price-list, which is being largely distributed, contains the following curious address to the "sick and ailing": "As there are frequent inquiries made by strangers and others as to whether I can recommend to them skilful medical aid, I beg to inform those that have to make such inquiries that I keep a list of the leading specialists in either medicine or surgery, and also general practitioners, and that I shall be very pleased to answer any personal inquirer." If this price-list were addressed solely to the general public the above sentence would scarcely call for notice at our hands. It is quite in order for anybody who believes he possesses superior knowledge to endeavour to spread it to the utmost for the general good. The price-list seems rather to be intended

for other purposes. It contains the prices of many drugs which are not, or rather should not be, ordinarily supplied to the public, and, moreover, it is being left at the houses of doctors. This suggests a totally different meaning to the paragraph we have quoted, and lends a sinister view to words to be met with in the preface: "You will find the benefit attending your patronage to be of a mutual character."

THE ROMAN INSTITUTE OF STATE MEDICINE.

FROM Rome our correspondent writes (Jan. 7th):—"Not to lag behind the movement now in progress at other seats of learning, Italy has added to the University of Rome a special school for instruction and qualification in public hygiene. On Thursday last the primary course of study in this institution was opened by its director, the Commendatore Pagliani, with an inaugural address. Among the audience were many distinguished physicians and surgeons from various parts of the peninsula, while local medicine was represented by Dr. Leoni, head of the institution for the supply of pure vaccine lymph (the Istituto Vaccinogeno), and Prof. James Moleschott. Dr. Pagliani set forth the objects of the Istituto Igienico, and invited the co-operation of the public, in whose behalf it lives and labours. He showed how the future of the human race is involved in the prevention of those destructive agencies which man's vices, organic and hereditary, have done so much to reinforce; and he illustrated the vital interdependence of hygiene and civilisation by the vast processes of soil reclamation now going on in the Agro Romano. He appealed to the philanthropist for active sympathy and support in the operations of a science the direct aim of which is to minimise social misery and to elevate the condition of the masses; and he concluded by thanking the Government, as represented by the Ministers of the Interior and of Public Instruction, for the signal help they had contributed to the efficiency of the Istituto Igienico. The Commendatore Pagliani concluded amid loud applause, and thereafter conducted a party of visitors over the institution and its various *locales*, drawing their attention to the assortment of hygienic apparatus and appliances, in which the latest improvements suggested by the health officer and the sanitary engineer were illustrated. Other medical schools throughout Italy will, it is understood, be assisted by the Government in following up the initiative so laudably taken by their Roman sister."

ILLEGIBLE PRESCRIPTIONS.

ATTENTION has been called by an evening contemporary to the fatal result of a prescription being illegibly written, a subject which cannot be too prominently brought to the notice of the medical profession. The sub-prefect of a town in France was suffering from a headache, for which his brother, a doctor, wrote a prescription for one gramme of antipyrin. The chemist was absent, and his sister, who received the prescription, read atropine. She hesitated to deliver this drug in a quantity which she knew would kill six men, but the servant who brought the prescription insisted there should be no delay, and she reluctantly gave the atropine. On the chemist returning a few minutes later, and being informed of what had happened, he hurried to the house, but too late to save the unfortunate sub-prefect from the fatal consequence of the mistake. The prescription, be it noted, "was written hastily and with a lead pencil." We fear that the art of prescribing is not infrequently dissociated from the art of writing, and that many chemists could testify to the lack of cultivation of the latter amongst those in high repute as regards the composition of their prescriptions. Surely as much pains should be taken to write legibly upon the prescription the ingredients and their doses as the physician takes to make his diagnosis or to explain his conclusions to the patient. Carelessness in prescribing is, to our thinking, culpable on the part of the prescriber and unfair to the compounder, who has to bear the responsibility of accurately following out instructions.

THE FOG AND ITS EFFECTS.

THOUGH we have during the present week witnessed some abatement of the lately prevalent fog, it would be premature to conclude that the worst is now over. Meanwhile we take advantage of a temporary lull in the general chorus of disapproval to inquire how far it was deserved. Everything, good or evil, has its apologists, and our ordinary City fog is no exception. The mere fact that, in spite of this enemy to comfort and free movement, we live on much as before, does not in our view, however, justify the assertion that fogs are not injurious to health. The presence of a large amount of carbonaceous matter in their composition must indeed moderate certain effects, but this is only a diluted good. Let us admit that it implies a certain disinfectant property, and we must also allow that it entails an equal degree of mechanical irritation. The healthy wayfarer probably knows this only as a cause of smarting nostrils and conjunctivæ. The sufferer from a chest disorder, with bronchi prone to spasm, or air cells loaded with secretion, feels its contact to be a much more serious matter. Some aggravation of the original disease is for him almost inevitable, and the chronic invalid with feeble heart and lungs partially destroyed has often found it to be little else than a sentence of death. The case of persons in health is happily more favourable. Were we to dilate upon all that constitutes a fog in one of our great cities, upon the sulphurous, ammoniacal, acid, and organic matters in its condensed vapour, and trace these to their original sources, we might indeed be tempted to ask whether life under such conditions was reliable. Science and experience, however, agree in showing that, with ordinarily vigorous health as a starting point, and with reasonable care, no serious danger need be apprehended. The quantity of noxious matter in suspension is at any time small. The amount of oxygen varies little if at all from the normal, and water vapour and smoke being by far the most abundant added constituents, the mechanical impediment to respiration is practically the only danger. The aged and the very young must of course feel the fog most, particularly when accompanied by such cold as that of last week. Their case, and, as far as it can be met, that of the poor, form at such a time the rallying points of needful attention. The most suitable preventives of mischief from this cause are familiar to many of us. Sufficient food, warm under-clothing, warmth with ventilation by means of a fire or stove in-doors, and for persons with irritable bronchi or lungs a respirator, the simpler the better, are all that need be here mentioned.

"NON-VENEREAL" SYPHILIS.

THE frequency with which syphilis may be communicated in non-sexual ways was found by Fournier to be in 5·07 per cent. of 827 cases of the disease in females in private practice, and of the remainder another 20 per cent. acquired the disease innocently in marital relations. Dr. Duncan Bulkeley, in an address given last year at the American Medical Association, dwells on this aspect of syphilis "as a non-venereal" disease, and cites numerous instances of infection in domestic and industrial life (*syphilis economica*) through the medium of articles in common use, especially of those in which the article in question is used in the mouth, through clothing, kissing, and other direct contact between the infected and the healthy. His second class of

non-venereal infection is that spread among or through infants and their nurses (*S. brephotropica*), and his third class (*S. technica*), where medical men or nurses have either received, conferred, or transmitted the virus. The paper, which is necessarily much condensed (*Jour. Amer. Med. Assoc.*, Dec. 22nd, 1888), contains many curious instances of these anomalous ways of inoculation—which form a lengthy catalogue, and lead him to urge the adoption of prophylactic precautions on a wide scale, and that syphilis should be dealt with like other contagious diseases.

MANSFIELD ISOLATION HOSPITAL.

THE Mansfield Improvement Commissioners have failed to secure the sanction of the Local Government Board to a loan for the temporary hospital provision which they made last year, and the result is that the cost of the provision will have to be borne by the rates for the year in which the accommodation was provided. This may seem a little hard, but it is now notorious that sanitary authorities who, having failed to provide themselves with suitable isolation hospitals, suddenly make some temporary arrangements to meet a real or a fancied emergency, generally provide buildings which fall short of the proper requirements of their districts; and it is well known that these emergency hospitals have often not only been all but useless for the very emergencies for which they were erected, but they have afterwards stood in the way of the provision of such hospitals as would enable a sanitary authority properly to carry out its work of isolation. We cannot, therefore, but regret that, after receiving an intimation that the hospital provided for Mansfield was not a suitable one for a loan, the Commissioners decided to make it more permanent in character by authorising a still further expenditure upon it. The policy is referred to in the local press as penny wise and pound foolish; and this is certainly the experience that has attended many similar expenditures of the kind.

A NEW PHASE OF THE SWEATING QUESTION.

FROM New Zealand we receive information which throws light on a new phase of the sweating question. A company for the importation of European goods has just declared a dividend of 96¼ per cent., and a bonus of 3¾ per cent., on shareholders' purchases made from the company. Under any circumstances such profits must seem most exorbitant; but if it be true, as is stated, that this company deals principally with drapers and clothiers, the fact is still more significant. It is well known that sweating is practised more particularly with respect to the clothes made for exportation. It is not therefore precisely because, with the aid of the sweating system, this colonial company is able to purchase clothes so cheap that, on selling them in the colonies, it can realise close on 100 per cent. The import company sell to clothiers and drapers, who, again, have a profit before the actual consumer can purchase the goods. No wonder that clothing is dear in New Zealand and cheap in London. We do not profess to deal with these commercial questions, but it does not require to be a business man or an economist to recognise that there is something fundamentally wrong when a company can pay its shareholders 96 per cent. dividends. Does this not suggest the grinding of the face of the poor in London, and the charging of exorbitant prices in New Zealand? Perhaps, then, we have in the exportation trade the opportunity of realising such economies as will permit the payment of better wages to the European producer, whilst also providing the emigrant in the colonies with cheaper clothing. Such reform would put an end to 96 per cent. dividends, and would prevent a few individuals rapidly realising large fortunes; but it would spread among many hundreds, many thousands, of worthy workers the means of living healthy, happy, and moral lives. This brings us to the conclusion that, in the inquiry on the sweating system, it does not suffice to ascertain the rate of wages and the price at which the goods are sold in England. We must also know how they are sold in the colonies, and then we may discover where the greatest saving is to be realised. Cheap clothes, cheap lodging, and cheap food are the chief necessities for maintaining public health. All middle men, whether as sweaters, merchants, or export companies, who unnecessarily intervene between the producer and the consumer, and so increase the cost of clothes, houses, and food, are the enemies of public health.

CIRRHOSIS OF THE LIVER IN CATS.

PROFESSOR GREENFIELD reports (*Journ. Comp. Path.*, Dec. 1888) the results of his examination of two well-marked examples of hepatic cirrhosis in cats. In the one specimen the organ was much enlarged and smooth, resembling to the naked eye a leucocythæmic liver. Microscopically, however, the lobules were found to be separated by wide bands of connective tissue, within which were dense plexuses of young bile ducts and bile capillaries, the formation of which appeared partly to be formed by fission of the liver cells. In the other case, a successful injection of the bile ducts revealed a large number of such plexuses, and a comparison with a healthy liver proved that in the cirrhotic the plexuses were of new formation. Each animal had ascites, and the cirrhosis was monolobular. Professor Greenfield points to the similarity in anatomical character between the conditions here found and those met with in hypertrophic or "biliary" cirrhosis, the difference being that in these cats there was no evidence of obstruction of the duct, or any jaundice, whereas there was marked ascites. In man hypertrophic cirrhosis is characterised by pronounced jaundice, and ascites is usually absent or slight.

THE PRACTICE OF INTERVIEWING.

A WELL-KNOWN ophthalmic surgeon has suffered himself to be interviewed by the representative of one of our enterprising evening contemporaries in regard to professional questions. We regret this. The replies he gave to his interviewer were, it is true, in highly general terms, to which no particular objection could be taken. But if every prominent medical man is to air his special message to the race in a newspaper, we shall have to alter our notions of professional taste and of that which is good for the public and the profession. Interviewers will not stop here, or content themselves with delicate and somewhat obvious generalisations. The bad habit may be used for purposes of personal advertisement. It will spread like an infection to all ranks of practice, and other organs of the body will have to confess their faults to the merciless interviewer, who respects neither age nor sex. We feel sure that the gentleman alluded to will agree with us in these remarks.

CONTROL OF THE SALE OF MILK.

THE question as to whether the sale of milk should be placed under the control of sanitary authorities, as by a licence granted to all salesmen having business transactions within the area of a sanitary district, has been frequently referred to in the periodic reports issued by Mr. S. W. North, medical officer for the city of York. He now again refers to the fact that he has traced infectious disease, such as diphtheria, to the family of a milk-seller, who, though outside the city in the rural area, sold his milk in York; and he urges on the Town Council the desirability of obtaining powers to deal with the sale of milk in the city by persons resident outside that area, and whose dairies are not in a

satisfactory state. The subject is one of very great importance, and we are glad to call attention to a reprint in this month's *Practitioner* of a very exhaustive paper which Mr. Shirley F. Murphy read at the December meeting of the Epidemiological Society of London on the Sanitary Administration of Dairy Farms.

THE METROPOLITAN PUBLIC GARDENS ASSOCIATION.

IT is not necessary to use many words in advocating the work undertaken and carried through with marked success by the Metropolitan Public Gardens Association. The objects aimed at—namely, to form out of the conveniences which London affords in burial grounds and vacant plots of land places of rest where the poor may enjoy at any leisure time fresh air and the beauty of shrubs and flowers, and where their children may have healthy exercise—are such as require no lengthy commendation, but speak well for themselves. During the past year there have been laid out one public park of fourteen acres (Myatt's-fields, S.E.), three gardens, including the Tower Garden, and three recreation grounds. Assistance has been given in stocking several gymnasia, among these being included that of the People's Palace, which received a grant of £100. Trees and seats have been distributed in various parts of the metropolis, and other works of a similar kind have also been carried out. In all practical matters the question of funds is a most important one. During the past year the books of the Association have showed the satisfactory increase of £2100 in the receipts over those of 1887. This, however, includes a grant of £4500 from the Mansion House Fund for the employment of men out of work. No such amount can be relied upon in aid of the present year's operations, and members of the Association and well-wishers of its undertaking, which is at once business-like, humane, and sanitary, will surely need no more than this reminder to encourage their liberality. We might speak at greater length on this attractive subject, but space will not allow. We would, however, mention that the report of the society, which has just been published, affords full information as to past, present, and prospective work, besides some valuable information relating to the law on the subject.

DENTAL EDUCATION AND GENERAL HOSPITALS.

A PRACTICAL TRIAL is about to be given to a scheme for establishing a dental school and department at Guy's Hospital, which was mooted some months back by Mr. Newland Pedley in the columns of a contemporary. According to the proposal, six assistant dental surgeons are to be appointed; lecturers on dental surgery, anatomy, mechanics, and metallurgy; and an anæsthetist; in fact, all the requirements of the College of Surgeons for the dental licence will be fulfilled. There has been for some time past a feeling amongst the staff of governors of hospitals that the dental departments are not quite what they ought to be, as, with some exceptions, no operations but extractions are performed, so that an attempt to increase their efficiency is welcome, although the advisability or practicability of this particular scheme must be rigidly scrutinised. There are two directions in which improvements can be made. First, that a certain number of stoppings and other dental operations may be performed daily as demonstrations to the general medical student; and, secondly, to organise a regular dental school, and make an attempt to meet the dental requirements of the patients presenting themselves. The former system is carried out at St. Bartholomew's, where, besides daily attendance, two dental officers attend twice a week for two or three hours for this purpose, and a similar system obtains also to a less extent at some other hospitals. The student thus has the means of obtaining some practical knowledge of dental work, which must be of considerable advantage when in general practice. To carry on a dental out-patient department fully requires a large staff, and, what is more difficult to get, a large number of students. It would be quite impossible for one dental surgeon to do all the work required on his day; it has to be done, in fact, by the *students* at the dental hospitals; the surgeon only supervises and demonstrates. The question of the expense which would be necessarily incurred cannot be overlooked in these days of failing incomes of hospitals, and the departments and schools can hardly be expected, even when fully developed, to be self-supporting; and it is a question whether the money would not be more worthily spent on cases more urgent than dental ones. For the present, at any rate, it would seem preferable that the system at St. Bartholomew's out-patient department should be generally carried out, and perhaps somewhat developed. According to the advertisement for dental surgeons at Guy's, it seems that the only qualification necessary is the licence in dental surgery. Surely this is an error. For a leading hospital to accept as clinical teachers gentlemen who are not members of the medical profession would, we think, be a move in the wrong direction.

SIR WILLIAM JENNER.

WE are glad to state that Sir William Jenner's health has steadily improved during the last week. He will probably be able to leave London at the end of the month for a few weeks' rest.

THE INTERCOLONIAL MEDICAL CONGRESS.

DURING this week the Intercolonial Medical Congress has been held at Melbourne, the arrangements being as follows:—Monday (7th): Inaugural meeting, to be opened by the Governor, followed by an address from the President, Mr. T. N. Fitzgerald. Luncheon at the Town Hall, given by the Mayor of Melbourne. In the evening, address in Medicine, by the Hon. Dr. Taylor, of Brisbane; and address in Anatomy and Physiology, by Professor Anderson Stuart, of the University of Sydney.—Tuesday (8th): Address in Surgery, by Dr. Stirling, of Adelaide; address in Obstetrics and Diseases of Women, by Dr. Batchelor, of Dunedin. Luncheon at the University. Sectional meetings in the afternoon. President's dinner at the Town Hall.—Wednesday (9th): Papers and general discussions, including one on Hydatid Disease, in the morning; and sectional meetings in the afternoon. Reception in the evening, by his Excellency the Governor and Lady Loch.—Thursday (10th): Address in Hygiene, Forensic and State Medicine, by Dr. MacLaurin; address in Pathology, by Dr. Bancroft, of Brisbane. Sectional meetings. Dinner to the Congress, by the Hon. the Speaker of the Legislative Assembly.

A DOUBTFUL CONVENIENCE.

SOMEWHAT alarming accounts reach us from Paris respecting the class of cabs which are "chauffée" by means of warmers filled with live coals. This form of luxury, like many others, is not without its dangers. It has during the present winter resulted in two deaths from asphyxia in a closed carriage. The explanation of such an occurrence is obvious. It is easy to understand how a careful person might avoid any such mishap; but it is no less easy to see that its repetition is at any time possible, since comfort within a closed vehicle would often be preferred to somewhat draughty ventilation by the window. On the whole, it is perhaps fortunate that the dubious

novelty has not received much favour among cab owners on this side of the Channel. In certain cases—as, for example, after leaving some overcrowded theatre or assembly room—the heated cab is a convenient means of transit, and is not without its advantages, though it cannot rank as a necessity. Wraps and closed windows maintain a reasonable degree of warmth. If, however, any heating apparatus be introduced, it is to be hoped that it will take some form which is desirable and defensible—such as that of a foot-warmer.

THE LIVERPOOL MORTUARY.

LIVERPOOL appears to be in some difficulty in regard to mortuary accommodation. There is a mortuary in Liverpool, but to whom it belongs is not very clear. Some time ago the Liverpool Select Vestry put it in repair, and made arrangements for its periodic cleansing, and now they are requested to bury all bodies removed to it, some of which are received from districts beyond their jurisdiction. The vestry are in the awkward position of allowing the body to remain unburied, thus creating a serious nuisance, or to incur an expense which should not properly fall upon their ratepayers. The area under their control is not conterminous with that of the Corporation, and, indeed, it is said they have no responsibility in the matter, the mortuary not belonging to them, but being the property either of the Council or the Dock Board. It appears therefore unfair to the Select Vestry that the default of other authorities should necessitate their intervention; in their difficulties they have undoubtedly adopted a wise course: they have ordered that the body be buried, and have represented the circumstances to the Health Committee; but the circumstances reflect on the health administration of the city, and we trust that the Liverpool Corporation, in the interest of their own reputation as a sanitary authority, will at once bring the dispute to an end.

THE SANITARY ESTIMATION OF THE AIR IN SCHOOL-ROOMS.

DR. IGNATIEFF has published in the Moscow Hygienic Laboratory Reports an account of his researches on the sanitary estimation of the air of school-rooms from a bacteriological point of view. His experiments were made upon the air in the class-rooms and dormitories of two classical gymnasia, and of a technical school in Moscow. The greatest number of colonies were found before the beginning of the lessons, after the midday interval, and at the time of dismissal. In the dormitories the greatest number was found during the time of dressing. The reason of this appeared to be that at these times the dust was stirred up. During the time that lessons were going on in the class-rooms, and during the hours of sleep in the dormitories, the dust was comparatively at rest, and the colonies were therefore diminished in number.

SCOTCH VACCINATION LAW.

AN interesting point in connexion with Scotch vaccination law has recently been raised at Oldmachar. The father of a child whose vaccination had been neglected had been fined; at a later date, the disobedience continuing, a further prosecution was instituted, but the sheriff held that a second prosecution of the same child could not be sustained, and therefore the Board of Supervision have expressed the opinion that it is the duty of the parochial board to obtain the judgment of the High Court upon a decision which must injuriously affect the working of the Vaccination Act. There is obviously a difference between English and Scotch law, but whether the sheriff's decision will be upheld is doubtful. Fortunately, the cost of an appeal is not great, and we are glad to note that the parochial board have given instructions for the opinion of the High Court to be obtained. It is somewhat surprising that this point has not been settled before.

THE LANCET MEDICAL FUND.

IT will be seen, by reference to the report of the proceedings at the Comitia of the Royal College of Physicians held on Wednesday last, and that of the meeting of the Council of the College of Surgeons held on Thursday, that the Councils of the Colleges have consented that the Presidents of the respective Colleges should, with the President of the General Medical Council, who has also given his consent subject to the approval of his Council, act as almoners of THE LANCET Medical Fund, in conjunction with the Proprietors of that journal.

SIR WILLIAM GULL.

WE are pleased to be able to announce that Sir William Gull's progress during the past week has been entirely satisfactory, and that he is now able to leave his room.

CHEMICAL CONSTITUTION OF GERMICIDE REMEDIES.

DR. S. K. JACKSON, of Norfolk, Virginia, in a paper on "The Carbon Compounds, their true place in the Treatment of Typhoid Fever" (*Medical Register*, Philadelphia, Dec. 8th), avers that "the more atoms of carbon an agent contains, the more powerful is its germicidal and therefore its antipyretic effect." In this way he passes through the aromatic series, from carbolic acid (C_6H_5HO), salicylic acid ($HC_7H_5O_3$), chinoline (C_9H_7N), naphthol, turpentine, kairin ($C_{11}H_{12}N$), antipyrin, to quinine, which contains twenty atoms of carbon, and is distinctly germicidal in malarial fevers. Yet, he remarks, for other fevers—e.g., typhoid—the carbon compounds are of less value than the nitrogenous, as the salts of ammonium.

MORTALITY FROM INFANTILE SYPHILIS.

IN a paper on Mortality from Infantile Syphilis at Saint-Lazare, communicated to the Obstetrical and Gynæcological Society of Paris, M. Le Pileur, taking Saint-Lazare as typical of the population of any town, finds that 14 per cent. of the pregnant women there are syphilitic, and that of every hundred births (including abortions) from syphilitic mothers only seven at the most survived the first months of extra-uterine life. By rule of three, M. Le Pileur therefore estimates that, of the 64,657 infants born annually in Paris, 9051 are of syphilitic mothers, and 8418 of these are either abortions or stillbirths. In fact, that 13 per cent. of the possible infants perish annually from congenital syphilis alone! The *Gazette Médicale* rightly protests against such statistical vagaries.

THE EPIDEMIC OF MEASLES.

A VERY extensive epidemic of measles is reported to prevail in Fulham and Hammersmith. In Fulham four of the elementary schools have been closed, and, according to a statement made by Dr. Reid, the disease exists in every street in Hammersmith. The guardians have suggested to the vestry that some action should be taken to stay the spread of the epidemic, but it is admittedly not easy to control measles when once widely prevalent in such districts as those to which we are now referring. In Cardiff and other towns, where similar occurrences have taken place, there has been a decrease in the extent of the epidemics; and in some towns where the schools have been altogether

closed, it is now proposed to reopen them. But in North Staffordshire the German measles has again become more severe.

THE LONDON UNIVERSITY M.B. EXAMINATION.

THE Registrar of the London University announces that the Senate have resolved to hold the M.B. Examination, for the future, twice in each year; once for Pass and Honours, commencing, as heretofore, on the last Monday in October, and once for a Pass only, commencing on the first Monday in May. In order to meet what is understood are the wishes of a considerable number of candidates, the matter has been pushed forward, so that the first examination under this new arrangement will be held next May, commencing on Monday, the 6th.

DUNDEE MEDICAL SCHOOL.

ON the occasion of the opening of the Anatomy Rooms at University College on Monday last, an inaugural address was delivered by Professor A. M. Paterson. Special reference was made to the work of the anatomists, who had made the Scottish system of teaching famous during the present century. The anatomy rooms, which are now open for practical work, comprise a well-lighted dissecting room, a lecture theatre, bone room, and library, as well as a preparation room for storing and preserving subjects. The abundance of anatomical material should make Dundee an attractive centre for the study of anatomy and operative surgery.

FOREIGN UNIVERSITY INTELLIGENCE.

Bonn.—The chair of Physics, held by the late Prof. Clausius, is to be divided into two separate professorships, one for Theoretical, the other for Experimental Physics. Professor H. Hertz, of the Polytechnic at Carlsruhe, has been appointed to the experimental chair.

Freiburg.—Prof. Ziegler, of Tubingen, has been invited to take the Professorship of Pathological Anatomy.

Graz.—Dr. O. Drasch, assistant in the Physiological Institute at Leipsic, has been appointed Extraordinary Professor of Histology and Embryology.

Halle.—A Professorship of Hygiene and a Hygienic Institute are to be established. Thus the German universities are being gradually provided with chairs of Hygiene, all those belonging to Prussia having them, with the exception of Bonn, Kiel, and Königsberg.

Lyons.—M. Glénard, Professor of Chemistry, has obtained leave of absence during the present session.

Vienna. — Dr. Ernest Braun has been provisionally appointed to the charge of the Foundling and Lying-in Institution, in place of Dr. Carl Friedinger, who is retiring.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Ebmeier, Surgeon-General and Body Physician to the Empress of Germany, suddenly, at the age of fifty-six, at Potsdam; Dr. Orth, the Senior Physician at Ems, in his seventy-seventh year; Dr. Silvestrini, of Palermo.

THE records of early mortality (*Echo*, Jan. 3rd) among stone-workers in fourteen German towns remind us of facts formerly familiar to us among Sheffield grinders. In these towns, during two years eighty-seven such operatives have died, eighty-two from pulmonary disease. Of the eighty-seven, only one had reached fifty-eight years, one fifty-six, and another fifty-five. None of the others exceeded forty-six, twenty died between thirty-nine and forty-six, thirty-nine between twenty-nine and thirty-nine, and twenty-six had not attained their twentieth year.

AN epidemic of "croup" (i.e., diphtheria) is said to have broken out in Saint Hubert, in the province of Luxemburg, of such severity that out of a population of 3000 no fewer than fifty children died within a week. An even more severe epidemic of diphtheria is reported from Nago, in Hungary, where twenty children are dying daily. In both places the inhabitants are said to be panic-stricken.

THE Council of Public Instruction in Chili has promised that an annual competition shall be held for a scholarship or scholarships for the study of medicine in Europe, open to licentiates in medicine who are between the ages of twenty-one and twenty-five, and who have obtained a prize or other distinction.

THE Medical Faculty of the University of Würzburg announces as the subject of the prize essay for 1889 the following: "To Determine by New Experiments the Volume of the Residual Air in the Human Lung, as to which the views of various investigators have hitherto differed very widely."

IN consequence of Dr. Goodhart's resignation of his appointment at the Evelina Hospital for Sick Children, Dr. Tirard succeeds him in the care of in-patients, and Mr. A. Carpenter, M.B. Lond., has been elected physician to out-patients.

THE death is announced of Professor Heinrich A. Pagenstecher, at Hamburg. He was born at Elberfeld in 1825, and was the author of a great work, entitled "Allgemeine Zoologie," in four volumes, which was completed in 1881.

DR. MAX VON PETTENKOFER, Professor of Hygiene and State Medicine in the University of Munich, has just been made "Commendatore della Corona d'Italia" (Knight of the Order of the Crown of Italy).

PROFS. J. ASHURST, JUN., and TYSON have been appointed to the chairs of Surgery and Clinical Medicine respectively in the University of Pennsylvania.

THE RIGHT USE OF STATISTICS.

THE medical profession is well represented in most of our learned societies, and for many reasons it is gratifying to us to know that one of its most honoured members has been elected President of the Statistical Society. Medical men are not generally regarded as authorities in the region of statistics, and yet there is no branch of statistical inquiry in which it is at once more important to be accurate and more easy to draw false conclusions than in investigations into the questions affecting the health and life of communities or classes of men. Amongst those members of the profession who have been able to use statistics as not abusing them, and who have done much to make them clearer and truer, there are few that have done better service than Dr. T. Graham Balfour, F.R.S., Surgeon-General of the Army. Dr. Balfour has been endowed by nature with a rare scent for truth, a keen eye for fallacies, and a large amount of common sense. These qualities, perfected by a large experience in the medical service of the State, have given him a high place among medical statisticians, and at length this judgment has been confirmed by his election to the chair of the Statistical Society. We commend to our readers his inaugural address in this capacity, delivered on the 20th of November, both for its exposure of the

facility with which errors in vital statistics are accepted and circulated and its representation of the service which good statistics of this sort render. We can only deal here in a very cursory way with one or two of the chief points of Dr. Balfour's address, of which at the time we gave an abstract. His main object in the address was to show that while sanitation in the army has had a most powerful effect in reducing the mortality of soldiers, its credit has been rather injured than otherwise by loose comparisons and hasty conclusions. His method consists in taking a leading proposition as to the physique or hygiene of the population, or of certain classes of men at different times, by public writers of eminence, and subjecting it to critical examination in the light of closer knowledge of all the details of each period, which serve to vitiate the comparison and largely qualify the conclusion. The main propositions so used by Dr. Balfour are two: one by the Earl of Meath, in a paper on the Health and Physique of our City Populations, reprinted from the *Nineteenth Century* of July, 1881; and the other by a highly-esteemed and veteran Fellow of the Statistical Society—Mr. Edwin Chadwick, C.B.,—on the Reduction in the Death-rate of the Guards in a quarter of a century from 20 per 1000 to 6½ per 1000, and that of the home army from 17 per 1000 to 8 per 1000, neither, however, as low as that of Germany, with a death-rate of 5 to 6 per 1000. The Earl of Meath, reasoning too exclusively from the known bad effects of density of population, and the increasing tendency of the people to congregate in towns, infers their general deterioration in physique. Dr. Balfour shows that no specific evidence of this deterioration is forthcoming, and that there is proof to the contrary in the marked reduction of the death-rate. Even the alleged increase of rejections of recruits for physical defects, such as height or chest measurement, is of doubtful accuracy, as the standard of different periods varied, or the examinations were made by persons of different degrees of carefulness; and from a table prepared by Dr. Balfour of the proportion per 1000 examined of recruits of 5 ft. 6 in. and upwards, he concludes that there has been an improvement in the height of recruits in the period 1881-85, as compared with that of 1864-8. So with regard to the rejection of recruits for moral reasons, differences of regulations as to marks of desertion and bad conduct have to be taken into account. Dr. Balfour checks in an equally acute way the comparison by Mr. Chadwick of the health of the Guards at two periods separated by a quarter of a century, and shows that mere sanitation cannot have been the only factor, but that other changes affecting the organisation and working of the army, such as shortened terms of service, reduction of the age of men serving, the reduction of the period of continuous service in the tropics, &c., must be considered. With equal eloquence and force he claims for statistics the demonstration of the fatality of long-continued tropical service, and the abolition of "the discreditable, though legal, system under which lads, still infants in the eye of the law, were permitted to contract with the Government for a life service, from which they had no power to obtain a release except through the indulgence of the authorities." The comparison of the mortality of the English army with that of the German has to be made with this qualification, among others, that there is a difference in the ages of the men. In the German army the proportion of men above twenty-five does not appear to exceed 15 per cent., while in our home army it is 29 per cent. The great moral of Dr. Balfour's illustrations of erroneous statistical conclusions is to be sure that, in comparing different periods, we are taking all the facts into consideration, and that we make due allowances for points of radical difference. We have only time for one more illustration from Dr. Balfour's rich experience of what he calls a valuable practical application of vital statistics to an important question of finance, but which we should rather call an illustration of the value of a little wholesome medical scepticism and intelligence applied to crudely collected statistics. Among the multifarious work of Dr. Balfour in regard to the sickness, mortality, and invaliding of the British army, not the least interesting is that which he prosecuted in conjunction with Sir A. M. Tulloch, inquiring into the life of the soldier *after his discharge from the army*. They were struck with the longevity of pensioners, and especially those whose pensions were high-pitched, as many of us are struck with the longevity of annuitants. Like good public servants, they obtained authority to investigate facts. They got access to the Chelsea books, and traced the history of 34,294 pensioners. They were assured that the system of checks was too perfect to admit of fraud. But they soon obtained sufficient evidence to show that fraud was being perpetrated. An identification of the pensioners, undertaken by the authorities of Chelsea, resulted in the detection of sixty cases of fraud, and at the next quarterly payment about 200 pensioners failed to appear, whose deaths could not be traced at any recent date, and who had doubtless been long dead and represented by others on pension day. In other cases, clerks in the public offices drew and appropriated the salaries of deceased soldiers. Dr. Balfour suggests that a little more care might well be taken to check the claims of Government annuitants of all kinds. It is gratifying, we repeat, to the medical profession to see one of its most respected members raised to the chair of the Statistical Society, and receiving well-earned thanks for his able address from such judges of his work as Mr. Robert Giffen and Dr. Mouatt.

THE LONDON COUNTY COUNCIL.

THE following is a complete list of the members of the medical profession nominated as candidates for seats on the Council of the new County of London.

Bermondsey (Southwark).—G. J. Cooper, M.R.C.S.

Dulwich.—R. S. Gutteridge, L.F.P.S.Glas.; Nelson Hardy, F.R.C.S.Edin.

Haggerston.—Major Greenwood, jun., M.D.Brux.

Holborn.—W. R. Smith, M.D.Aberd.

Islington, West.—R. Brudenell Carter, F.R.C.S.Eng.; J. T. Slater, M.D., C.M.Glas.

Marylebone, East.—Timothy Holmes, F.R.C.S.Eng.

Mile-end, Tower Hamlets.—F. J. Reilly, L.R.C.P.Edin.

Newington, West.—W. G. Bott, L.R.C.P.Edin.

Paddington, North.—E. Parker Young, M.R.C.S.

Wandsworth.—G. B. Longstaff, M.A., M.B., F.R.C.P.Lond.; William Pocock, M.D.St.And., M.R.C.S.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns, the aggregate population of which in the middle of the present year is estimated at rather more than nine and a half millions, 6148 births and 4161 deaths were registered during the week ending Jan. 5th. The annual rate of mortality in these towns, which had been 17·8, 22·2, and 20·0 per 1000 in the preceding three weeks, rose last week to 22·7. During the thirteen weeks of the last quarter the death-rate in these towns averaged 19·8 per 1000, and was 2·2 below the mean rate in the corresponding periods of the ten years 1878-87. The lowest rates in these towns last week were 12·9 in Brighton, 13·7 in Birkenhead, 19·0 in Wolverhampton, and 19·1 in Hull. The rates ranged upwards in the other towns to 28·0 in Manchester, 29·6 in Liverpool, 32·9 in Cardiff, and 39·2 in Blackburn. The deaths referred to the principal zymotic diseases, which had been 621 and 577 in the previous two weeks, rose again last week to 618; they included 314 from measles, 108 from whooping-cough, 64 from scarlet fever, 50 from diphtheria, 41 from "fever" (principally enteric), 41 from diarrhœa, and not one from small-pox. No death from any of these zymotic diseases was registered during last week in Wolverhampton, while they caused the highest death-rates in Manchester, Salford, Cardiff, and Blackburn. The greatest mortality from measles occurred in Bolton, Huddersfield, Leicester, Salford, Liverpool, Cardiff, and Blackburn; from whooping-cough in Blackburn, Cardiff, and Preston; from scarlet fever in Manchester, Sheffield, and Blackburn; and from "fever" in Hull, Birkenhead, and Salford. The 50 deaths from diphtheria in the twenty-eight towns included 33 in London, 4 in Manchester, 4 in Salford, and 2 in Nottingham. No death from small-pox was registered in any of the twenty-eight great towns. No small-pox patient was under treatment during the week in the Metropolitan Asylum Hospitals, and only two in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum Hospitals

and in the London Fever Hospital was 742, against numbers declining in the preceding seven weeks from 980 to 791; 60 new cases were admitted during the week, the numbers in the previous five weeks having declined from 96 to 44. The deaths referred to diseases of the respiratory organs in London, which had been 440 and 412 in the previous two weeks, rose last week to 484, but were 67 below the corrected average. The causes of 86, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Newcastle-upon-Tyne, Sunderland, Bradford, Leicester, and in three other smaller towns. The largest proportions of uncertified deaths were registered in Preston and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·3, 20·1, and 20·3 per 1000 in the preceding three weeks, further rose to 23·6 in the week ending Jan. 5th; this rate exceeded the mean rate in the twenty-eight large English towns by 0·9. The rates in these Scotch towns ranged from 16·8 and 17·6 in Edinburgh and Aberdeen, to 28·4 in Glasgow and 35·7 in Paisley. The 604 deaths in the eight towns showed a further increase of 92 upon the numbers returned in recent weeks, and included 16 which were referred to whooping-cough, 13 to measles, 7 to diarrhœa, 6 to diphtheria, 5 to "fever," 2 to scarlet fever, and 1 to small-pox; in all, 50 deaths resulted from these principal zymotic diseases, against 47 and 60 in the preceding two weeks. These 50 deaths were equal to an annual rate of 2·0 per 1000, which was 1·4 below the mean rate from the same diseases in the twenty-eight English towns. The 16 fatal cases of whooping-cough showed a considerable increase upon recent weekly numbers, and included 15 in Glasgow. The 13 deaths from measles corresponded with the number in the previous week; 7 occurred in Glasgow, 3 in Paisley, and 2 in Greenock. The deaths referred to diphtheria, which had been 7 and 16 in the previous two weeks, declined last week to 6, of which 4 occurred in Glasgow. Three of the 5 fatal cases of "fever" and 3 of the 7 deaths from diarrhœa were returned in Glasgow. The fatal case of small-pox was recorded in Dundee. The deaths referred to the principal diseases of the respiratory organs, which had been 121 and 95 in the previous two weeks, rose last week to 140, but were 29 below the number returned in the corresponding week of last year. The causes of 77, or nearly 13 per cent., of the deaths registered during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 30·9 and 21·3 per 1000 in the preceding two weeks, rose to 31·3 in the week ending Jan. 5th. During the thirteen weeks of last quarter the death-rate in the city averaged 24·8 per 1000, the mean rate during the same period being 18·8 in London and 15·5 in Edinburgh. The 212 deaths in Dublin showed an increase of 68 upon the number in the previous week; they included 5 which were referred to "fever" (typhus, enteric, or ill-defined), 5 to whooping-cough, 1 to scarlet fever, 1 to measles, and not one either to small-pox, diphtheria, or diarrhœa. Thus the deaths from these principal zymotic diseases, which had been 19, 18, and 13 in the preceding three weeks, further declined last week to 12; they were equal to an annual rate of 1·8 per 1000, the rate from the same diseases being 2·9 in London and 0·4 in Edinburgh. The 5 fatal cases of "fever" corresponded with the number in each of the preceding two weeks, while those of whooping-cough showed an increase of one; the deaths from the other zymotic diseases had declined. Ten inquest cases and 7 deaths from violence were registered; and 83, or considerably more than a third, of the deaths occurred in public institutions. The causes of 24, or more than 11 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-Major Thos. Michael O'Brien is granted retired pay (dated Jan. 9th, 1889).

ARMY MEDICAL RESERVE OF OFFICERS.—The undermentioned Surgeons and Honorary Surgeons-Major to be Surgeons-Major, ranking as Majors (dated Jan. 9th, 1889):—George Sampson Elliston, 1st Volunteer Battalion, the Suffolk Regiment; Michael Benny, M.D., 4th Battalion, the Princess Louise's (Argyll and Sutherland Highlanders). The undermentioned Surgeons-Major resign their commissions (dated Jan. 9th, 1889):—Robert Phair Frazer and Robert Alexander Jackson.

ADMIRALTY.—The undermentioned Staff Surgeons have been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet:—William Henry Putsey and Richard Alfred Mowel, M.D. (dated Dec. 27th, 1888).

The following appointments have been made:—Staff Surgeon Thos. D. Gimlette to the *Terror*, and Staff Surgeon Richard J. Barry to the *Brilliant*, additional, temporarily (both dated Jan. 4th, 1889).

VOLUNTEER CORPS.—*Artillery:* 1st Ayrshire and Galloway: Acting Surgeon A. Marshall, M.D., resigns his appointment; also is permitted to retain his rank, and to continue to wear the uniform of the Corps on his retirement (dated Jan. 9th, 1889).—*Rifle:* 1st Volunteer Battalion, the Highland Light Infantry: Acting Surgeon M. Cameron resigns his appointment (dated Jan. 9th, 1889).—2nd Volunteer Battalion, the Duke of Edinburgh's (Wiltshire Regiment): Surgeon E. N. Carless is granted the honorary rank of Surgeon-Major (dated Jan. 9th, 1889).—20th Middlesex (Artists'): Acting Surgeon W. Pearce, M.D., is appointed Surgeon (dated Jan. 9th, 1889).

Correspondence.

"Audi alteram partem."

THE MEMORIAL TO THE PRESIDENT AND COUNCIL OF THE BRITISH MEDICAL ASSOCIATION.

To the Editors of THE LANCET.

SIRS,—At a largely attended meeting of the Bath and Bristol Branch of the British Medical Association, held on Dec. 13th, 1888, a resolution was passed giving expression to the feeling of the members on the violation of professional confidence involved in the recent publication of a "script" of the late German Emperor. As those responsible for the conduct of the official journal of the Association have thought fit to prevent the appearance of this resolution in its pages, I appeal to you to give by its publication in THE LANCET that currency to the opinion of the profession in this neighbourhood which it has failed to obtain in the journal of the Association.

Resolved: "That this Branch concurs with the signatories to the memorial recently presented to the President and Council of the Association in regarding the publication of a facsimile of a 'script' by the late German Emperor referring to his treatment by one of his medical attendants as a gross violation of professional confidence; and they would express the hope that the President and Council will take some more decided steps than they have yet done to clear the Association and the profession of the discredit which this matter has brought upon them."

I am, Sirs, your obedient servant,

Clifton, Bristol, Jan. 7th, 1889. HENRY MARSHALL.

INACCURACIES ABOUT VACCINATION.

To the Editors of THE LANCET.

SIRS,—The inaccuracy about the vaccination law in the several provinces of Canada, which formed the subject of your leading article last week, has already been corrected in the stereotype plates of the "Encyclopædia Britannica" by inserting the word "Lower" before "Canada." Two other inaccuracies, pointed out by a well-informed leader writer in a daily newspaper, have been corrected by inserting "not less than" before "one shilling and sixpence," and by changing 679 into 673 and 271 into 176 in the small-pox figures for the year 1875. The desire for accuracy is of course laudable, only it cuts both ways. I have already had occasion to correct one considerable error (about infantile syphilis) made in your own editorial columns, and I have now to ask your leave to correct another. You say that the editor of the Encyclopædia engaged me to write on vaccination, knowing that I had a bias. This is an assumption, surely not in the best taste,

and at all events absolutely groundless. The subject was assigned to me several years ago, along with other subjects; and when I began it in 1886 I had no other prepossessions than those which nearly all medical men have in favour of an established doctrine and practice. It was not until I had spent some months in a search among the authorities, pathological and other, at first hand, that I felt constrained to modify the opinions which I had hitherto implicitly accepted, so as to bring them into accordance with the historical facts.—I am, Sirs, your obedient servant,

Great Ormond-street, W.C., Jan. 7th, 1889. C. CREIGHTON.

REFORM AT THE COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—The letter from "A Fellow," confirming the statements which I made concerning the examinations at the College of Surgeons, and the fact that not a word has appeared in your columns either in excuse or in defence of the Court of Examiners, conclusively establishes the fact that my complaint is well grounded. In your issue of the 5th inst., you indicate concerning this and other reforms which are necessary in the College that it is apparently the intention of the Council to assume a position of masterly inactivity under the shelter of the new Charter. I think it a matter of no importance whether the Council takes this attitude or not, or whether the Council believes that it will be sheltered under the Charter. An easy method of reform rests in changing the *personnel* of the Council, and that is an object to which we must all direct our attention. Now that proxy voting is established, it will be a matter of the greatest ease, though it may require a little time, to change the whole Council, or at least to change it to such an extent as to obtain a working majority in the direction of reform. I trust that every Fellow who has the true interests of the profession at heart will devote himself to this effort. I am, Sirs, yours faithfully,

Birmingham, Jan. 7th, 1889. LAWSON TAIT.

"IS INSTRUMENTAL DELIVERY A CAUSE OF IDIOCY."

To the Editors of THE LANCET.

SIRS,—In your issue of Jan. 5th, under the above heading, reference is made to a paper in a Dutch medical journal by Drs. Winkler and Bollaan on the "Forceps as a Cause of Idiocy," and it is stated that "they are disposed to think that the use of forceps is much more frequently the origin of idiocy than is generally supposed." I am afraid that if this statement is allowed to go forth to the profession uncontradicted great harm will result; for the researches of those of us who are engaged in the training and treatment of idiots and imbeciles prove that the use of the forceps has much less influence than their disuse in the production of idiocy and imbecility. I have for some years taught the students, who are sent here by some of the lecturers on psychological medicine, that prolonged and difficult labour is a potent cause of imbecility, and that in such conditions it is better to put on the forceps than to run the risk of prolonged compression of the head, resulting in asphyxia, paralysis, and other evils. Of course, one supposes that the forceps will be put on carefully. I have lately been inquiring into this very subject, and, putting aside the predisposing causes of intemperance, insanity, imbecility, epilepsy, &c., which are often present, I find that of 810 cases, in which I have been able to obtain histories, only thirty-five, or 4·3 per cent., are said to be due to the application of forceps, while 216, or 26·6 per cent., are due to prolonged and difficult labour. Further, the majority of these cases, when born, were not only asphyxiated, but were in a helpless condition, some having lost the use of their legs, others becoming subject to convulsions. Moreover, the head was often crushed, elongated, discoloured, and deformed. On the other hand, in the thirty-five cases which had been delivered by forceps, only seven were helpless or paralysed. I therefore maintain that the use of the forceps is preferable to prolonged and difficult labour, and I would ask the profession not to be misled by the few cases of Drs. Winkler and Bollaan.

I am, Sirs, yours faithfully,

FLETCHER BEACH

Darenth Asylum for Imbecile Children, Jan. 7th, 1889.

GENERAL PARALYSIS OF THE INSANE IN GENERAL HOSPITALS.

To the Editors of THE LANCET.

SIRS,—In reading Dr. J. Adam's letter in your issue of the 5th inst., I hardly know which to be most surprised at—his views about general paralysis, the carelessness with which he must have read the account of the cases I published (judging from the way in which he has, of course unintentionally, misrepresented my views), or his rashness in giving advice about cases he has never seen. Whether "general paralysis is of less frequent occurrence relatively to other forms of mental disorder than it was" I leave for Dr. Adam to settle with other alienists. I can only say that my own limited observation suggests the opposite conclusion. With regard to the curability of general paralysis, Dr. Adam's remarks are indefinite in the extreme. If he means, as he certainly appears to do, that any large proportion of undoubted cases of general paralysis can be *permanently* cured by his "improved methods" so as to "lead fairly *useful* and happy lives," it is quite time that Dr. Adam took the profession into his confidence and informed them of what these "improved methods" consist. Dr. Savage says:[1] "As soon as it is definitely settled that a patient is suffering from general paralysis of the insane, the prognosis is really made. No such case, as I have said, when fully established, ever recovers; remissions occur, but not cures." Blandford says:[2] "Practically, we look upon the disorder as fatal, and probably fatal in three or four years. Indeed, it is a question whether any have ever recovered from it. Here and there we may see a patient who is said to have recovered; but unless a long period has elapsed we cannot be sure that recovery is anything more than a remission."

Dr. Adam expresses surprise at the "fact of its being found possible to have cases of this once formidable mental disease brought under ordinary general hospital treatment." He has evidently missed the chief point of my paper, which was to emphasise the predominance of the bodily or physical disease over the mental. Does he suppose that all the cases of general paralysis are born and spend their whole lives in asylums? If not, there must be a time when they are outside. Or does he suppose that general paralysis is so suddenly developed that it is possible to say that one day a patient is in full mental and bodily health, and the next is a confirmed general paralytic suitable for asylum care? Has he forgotten that most cases of general paralysis must spend some (usually only the early) period of their disease outside asylums, until there is a sufficient departure from mental health to enable a diagnosis of "unsoundness of mind" to be made? But even proof of "unsoundness of mind" is not sufficient ground for sending anyone to an asylum. If Dr. Adam does not know, the general public do, that the important portion of a lunacy certificate consists in the words "a proper person to be *taken charge of* and *detained* under care and treatment." Is it strange, then, that among the many hundreds of patients admitted into the Nottingham General Hospital every year some few should be found to be suffering from, or to develop during their stay, such mental disease as necessitates their removal to the asylum, or their dismissal home to the care of their friends? If Dr. Adam had read my paper with reasonable care, he would have found that nowhere do I "advocate ordinary hospital treatment for all cases of mental disorder," or even for cases of mental disorder at all. I have no interest in hurrying cases to an asylum, or in keeping them out, except consideration for the welfare of the patient. Further, Dr. Adam expresses disappointment "on finding that cases described in the opening paragraphs of the article in question '*as being of interest for the remarkable absence or mildness of the mental symptoms*,' presenting among them such features as the following, &c." If Dr. Adam had read more carefully, he would have noticed that the words he quoted were part of the sentence: "The following cases are of interest for the remarkable absence or mildness of the mental symptoms, and the consequent difficulty and uncertainty of the diagnosis; *and in one instance (Case 1) for the unusual mode of onset, apparently after myelitis.*" The pronounced mental symptoms he quotes

[1] Insanity and Allied Neuroses. Second Edition, p. 343.
[2] Insanity and its Treatment. Third Edition, p. 312.

are all in the report of Case 1. If Dr. Adam wishes all people who "sleep badly and are restless and emotional" to be sent straight to asylums, it will be necessary to increase asylum accommodation manifold. Most of the other mental symptoms mentioned were manifested during a period to be measured rather by hours than by days, and the patient was then removed to the asylum as speedily as the usual formalities could be completed. And, lastly, Dr. Adam says: "But with all deference to those who advocate ordinary hospital treatment in all cases of mental disorder, I cannot help thinking that in such cases as this, at all events, it would have been better if an earlier diagnosis had been *practicable* and *excitement prevented* (?) by earlier removal to a hospital specially designed and adapted, and with all the appliances for successful treatment—i.e., the modern asylum." The first part of this sentence must either be a piece of oracular wisdom, and mean that it would have been better if the disease had run a different course, in which case I possibly might have found it too commonplace to be worth publishing; or else it must be intended for a left-handed compliment to myself, for which I hope I am duly grateful. With regard to the latter part of the sentence, I think your readers will appreciate the special pleading of that as well as of the rest of the letter. I am, Sirs, your obedient servant,

Nottingham, Jan. 7th, 1889. H. HANDFORD.

To the Editors of THE LANCET.

SIRS,—Pray allow me to endorse the protest of Dr. James Adam in your issue of the 5th inst. against the increasing practice of treating general paralysis with mental aberration in the wards of a general hospital. The cure as well as the comfort of the other patients under treatment in such a hospital for various bodily diseases will certainly not be promoted (to put it mildly) by the eccentricities and sometimes offensive intrusions and exaltations of the "general paralytic." If emotional disturbances, much more if destructive or filthy habits, are present, the influence on the progress of the mentally sound patients is specially injurious. On the other hand, in an institution specially adapted for mental cases every means of suitable treatment is provided, to the injury of no patient labouring under a mere bodily ailment. In such a special hospital, or rather asylum, the afflicted in mind have much greater chance of cure than when associated with sufferers from a variety of distressing bodily disorders. There is the more need for attention being drawn at the present time to this matter, inasmuch as for obvious reasons most medical practitioners rather shrink from the responsibility of certifying as to unsound mind. The responsibility is indeed great, but there are few duties without more or less responsibility; and I feel sure that a bolder course with the insane at an early and more curable stage of insanity would show very much more favourable results than even the vast improvement in our treatment of the insane has undoubtedly effected.

I am, Sirs, your obedient servant,

NORMAN KERR, M.D.

Grove-road, Regent's-park, N.W., Jan. 5th, 1889.

THE PROTECTION OF THE MEDICAL PROFESSION.

To the Editors of THE LANCET.

SIRS,—Your correspondent, "J. H.," seems to be in the right kind of mood for starting an association with the above object in view, but one cannot help feeling that he is embarking on a long and tedious pilgrimage. However, a great step has been made, for the need of organised union among the rank and file of the profession is now generally recognised. It is no over-statement to say that disunion leaves the general practitioner at the mercy of corporate bodies, of hospital authorities, and of unqualified practice in all its branches. A word or two may be offered in proof of each of these grievances, which are chosen haphazard from a crowd.

1. *Corporate bodies.*—One instance only need be cited of the high-handed action of the governing classes in relation to the main body by whom they have been created. The last issue of THE LANCET contains this passage: "Sir Spencer Wells proposes to do away with the annual meeting of Fellows and Members—i.e., of the College of Surgeons." Further comment is unnecessary.

2. *Hospital authorities*, who get gratuitous medical service, yet treat the profession generally with contemptuous indifference. Here is Guy's Hospital advertising for patients who can afford to pay £3 3s. a week. Funds are craved by bodies of people interested in keeping up large and expensive establishments, with practically no check whatever on their accounts. Can the public be aware that their money is enabling these institutions to compete with medical men for their patients?

3. *Unqualified practice.*—Two points may be chosen from this immensely wide field. First, there can be little doubt that prescribing chemists rob the profession annually of a huge sum. What steps, if any, are taken to put a stop to this practice? Secondly, are bonesetters allowed to publicly advertise their calling? Is such advertising contrary to law? (Quite lately one of these had the impudence to send a circular round to all the medical men on the Register.)

But let "J. H." not abandon hope. Let him remember the long life of unwearied disappointment that many a reformer has had to endure before his efforts have been crowned with success. The day of union must assuredly come, but it is hardly to be hoped for among the scattered and too often selfish units of the present medical generation. "J. H." must turn to the young men. Let him open the eyes of the students and of the newly qualified. Show them how their interest, perhaps their whole future happiness, lies in combination. But let "J. H." first carefully inquire into existing societies, and how they may be brought into the general organisation. If the present writer may be allowed to add his exhortation, it will be in the shape of a quotation from a previous paper on the subject. "What, then, is the remedy for this [hospital competition] and other ills? The answer lies in a nutshell. Do as every other body of rational men has done when driven into the like extremities. Let the general practitioners combine, let them form a professional union for mutual protection, and the game will be very much in their own hands. By such means revenues that are at present diverted into alien pockets would be restored to their legitimate channels. There is enough and to spare for all, if only medical men would recognise the fact that combination is the one way to bring the enemy to terms. At the present stage of moral evolution, it seems sad to say that nothing is likely to be conceded except to superior force, yet it may be emphatically asserted that such is the case; and the writer would repeat that the only way in which the immense potential force of the profession can be made available is by firm and enthusiastic union. Such a course would doubtless be beset with difficulties. Medical men as a class are inclined to grumble, and let things alone. The very humanity they acquire in the exercise of a noble profession leads to the formation of unbusiness-like habits, and leaves them at the mercy of harpies, of close corporations, of vested interests, and of misguided benevolence." But medical men should not be content with mere grumbling; they should join actively in such movements as your correspondent is attempting. Let "J. H." persevere. There are plenty of earnest men about, if only they can be got together and kept up to the proper pitch of enthusiasm. Meanwhile, it is with pleasure the writer places at the disposal of "J. H." the humble services of

New Year's Eve, 1888. NOMINIS UMBRA.

*** We have been compelled to somewhat curtail our correspondent's letter.—ED. L.

A PROTEST.

To the Editors of THE LANCET.

SIRS,—In to-day's *Telegraph* appears a whole page advertisement of the "Electropathic Belt Company and Zander Institute," Oxford-street, W., and a column is chiefly devoted to announcing the medical patronage they have received. This company has taken an unwarrantable liberty in advertising my name as one of its supporters. The Zander Institute was once respectable, and I recently advised a patient to go there, not knowing it had changed hands. Had I known into whose hands it had passed I should have carefully avoided it.

I am, Sirs, yours faithfully,

Harley-street, W., Jan. 8th, 1889. WILLIAM MAC CORMAC.

"ALLEGED EXTRAVAGANCE OF HOSPITALS."

To the Editors of THE LANCET.

SIRS,—As you have again kindly allowed the subject of my paper to be ventilated in your columns, will you let me say a few words in reply to those who are aggrieved? In writing my paper I was careful to avoid the mention of any names, but I endeavoured to make it clear to all and sundry that my remarks were directed against the few, and not the many, in the hospital world. That this has been the general acceptance of the purport of my paper is evident from the criticism it has received in the daily press. I showed very clearly by the figures I set forth that, at any rate, some hospitals were economically managed; and if my paper will bring to the minds of a portion of the giving public the necessity for ascertaining which these are, much will have been done for the popularity and increased income of the well-managed hospitals, to the discomfiture of those which are the reverse.

I am, Sirs, your obedient servant,

Seamen's Hospital, Greenwich, Jan. 8th, 1889. P. MICHELLI.

MANCHESTER.

(From our own Correspondent.)

HANDSOME DONATIONS TO HOSPITALS.

MR. CHAS. E. LEES of Oldham has recently made large pecuniary gifts to the Eye Hospital and to St. Mary's Hospital. To the former he sent a cheque for £1000, accompanied by a note expressing his great satisfaction and pleasure at what he saw of the work of the hospital during a visit he had shortly before made to it. To St. Mary's he sent £500, to be placed either to the ordinary income or to the special fund now being raised with which to build a new hospital. The board decided on the latter course.

ROYAL INFIRMARY.

Less than six months ago a vacancy for assistant physician to the infirmary was occasioned by the resignation of Dr. Morgan. Now another vacancy to a similar appointment is announced owing to the resignation of Dr. H. Simpson, who for a long term of years has been physician there. By the present rules of the infirmary every member of the honorary staff has to resign his appointment on completing his sixtieth year; in both the above instances, however, the retiring physician has not waited for this rule to take effect, but has made way for promotion of the junior members of the staff at a somewhat earlier date than was compulsory. For the present vacancy, as at the late election, there will be no dearth of candidates. Of the names mentioned, three, Dr. Reynolds, Dr. Wilkinson, and Dr. Moritz, have all been long connected with the infirmary staff as resident medical officer and assistant medical officers respectively.

On Monday next a deputation from the Owens College Council are to meet in conference the Board of the Infirmary to discuss the proposed new hospital, funds for the erection of which have been placed at the disposal of the College authorities by the Whitworth legatees. Two aspects of this question at once suggest themselves. Firstly, is another general hospital needed in the district in the interests of the sick poor? Large extensions have been, and are being, made to the Salford Royal and the Ancoats and Ardwick Hospitals; and, judging from the number of empty beds in the infirmary during the past month or two, there is no very great strain upon the resources of that institution. On the other hand, it must be admitted that there is no hospital in the immediate neighbourhood of that part of the city where the new hospital would probably be built. So much for actual needs. The other and more important question, as it affects the College, is the desirability of having, in the interest of the medical school, a hospital in closer touch with themselves, where the members of the staff would be more subject to the control of Owens College, and where the curriculum and course of study for students would be under its own supervision more or less, and where hospital appointments would always be available for the professorial staff of the medical department. From sundry complaints that have not long since been made about the clinical teaching at the infirmary, this view of the question will have considerable weight. It should, however, be stated that one of the points mentioned when the offer was made to the College to provide funds for a new hospital was the desire on the part of the legatees that provision should specially be made in the new wards for the reception of cancerous diseases, which are not at present provided for in any number.

CHRISTMAS HOSPITAL FESTIVITIES.

Most of our hospitals had some little festivities in honour of Christmas and the New Year. On Saturday last a large gathering of visitors and friends assembled at the Children's Hospital, Pendlebury, and Christmas trees were lit up and presents distributed (many of a useful character) to the great delight of the little patients. A very pleasant evening was also spent in Christmas week at the Salford Royal Hospital, and by the kindness of friends a large number of useful presents were given to patients, nurses, and servants. The wards, with their decorations and lights, presented a very gay and cheerful appearance. A similar distribution of gifts was made to the patients in the infirmary wards on Christmas Day, but, following the custom of late years, no special or general entertainment was provided, as was the case a few years since.

THE VACANT HEALTH APPOINTMENT.

No steps have yet been taken to fill up the vacant post of officer of health to the city, but a special committee has been formed to consider and report upon the conditions on which the appointment shall be made, the duties of the new officer, and generally upon all matters relating to the office or means for making or placing it upon a more satisfactory and efficient basis. Measles and typhoid fever are still very prevalent, though the latter has abated somewhat during the past fortnight. The Salford Fever Hospital is, however, still full to overflowing, and application has been made to the guardians to assist the corporation in providing further hospital accommodation.

THE SMOKE NUISANCE.

Agitation still goes on respecting the nuisance from the excessive production of smoke, and occasionally a batch of offenders are summoned before the magistrates and fined; but as yet no practical improvement is apparent in our murky atmosphere. Strange to say, in this respect complaints have been made against the infirmary itself.

Jan. 8th.

EDINBURGH.

(From our own Correspondent.)

THE UNIVERSITY.

THE new year, as was to be expected, has been ushered in by reports of institutions of all kinds. Amongst the most important of these, perhaps, is that issued by the secretary of the Senatus Academicus of the University of Edinburgh. Statistics of the number of students and other kindred matters have from time to time been referred to in these columns; but amongst those now issued are some which may be of interest, especially to those who are concerned in the growth and development of our medical schools. During the past year the total number of matriculated students was 3532, or an increase of 73 on last year's numbers, and as against 2667 in 1878 and 1564 in 1868. Of these, 1942 were enrolled in the Faculty of Medicine, 1008 in the Faculty of Arts, 474 in Law, and 108 in Divinity. The sources from which the students of Medicine were drawn were as follows: 832 from Scotland, 705 from England and Wales, 36 from Ireland, 79 from India, 247 from various British Colonies, and 43 from foreign countries. From these figures it will be seen that never was the University in a more flourishing condition than at present, but a hope is expressed in the report that still better progress will be made when the Universities Bill has passed into law. It may be noted that amongst the new Fellowships is one of £50 per annum, founded by Dr. A. H. Freeland Barbour, a young member of our profession, who, by his own work, has already done much to promote the science and practice of gynæcology.

THE ROYAL INFIRMARY.

Another important report was read at the annual meeting of the contributors to the Edinburgh Royal Infirmary, held in the Council Chambers on Monday last. During the year from Oct. 1st, 1887, to Oct. 1st, 1888, there were treated in the wards 8810 patients, which are classified under the following headings: cured, 4035; relieved, 2932; dismissed on other grounds, 748; died in hospital, 567; remaining in hospital, 538. In the surgical wards there were 3622 cases, and in the medical wards 4650. Financially the year has been a most satisfactory one; no less than £35,842 came to the institution in the form of donations and legacies, by which the managers have been able to pay off a deficit balance of £4711 carried forward from last year, and to reduce the debt on the buildings by nearly £20,400, leaving a debt of £22,770 still to be liquidated. The ordinary income for the year was a little over £30,000, and the ordinary expenditure nearly £34,000, the deficit again having been made up from legacies, &c. The funds of the infirmary at present stand at the goodly total of nearly £255,000. The cost per bed for the year was, for maintenance, £19 10*s.* 5*d.*, as compared with £19 18*s.* 6*d.* last year; and for medical expenditure, £7 10*s.* 5*d.* in 1888, as against £7 3*s.* 10*d.* in 1887. This was for a daily average of 637 patients. In the nursing department splendid work is done, and an idea may be formed of the high reputation of the nursing school from the fact that during the year the number of applicants desirous of joining the staff was 524, while there were only six vacancies to fill up.

THE RESULTS OF THE NEW YEAR'S FESTIVITIES.

Attention has been drawn to the fact that the number of sudden deaths occurring immediately after "Hogmanay" has this year been very great indeed, and it is freely discussed that the festivities associated with New Year's Day have been no small factor in bringing about such mortality. Whatever may have been the cause, the fact remains.

The classes, both University and extra-mural, are now in full swing; a large number of the medical students returning to town on Monday, the first day after the vacation.

Edinburgh, Jan. 8th.

IRELAND.

(From our own Correspondent.)

DUBLIN.

TYPHOID FEVER IN DUBLIN.

DURING the last week of 1888 there were 17 cases of typhoid fever admitted to the Dublin hospitals, being 10 over the admissions of the previous week, making a total of 64 cases under treatment in those institutions. The deaths for the December quarter amounted to 67, being double the number of the fatal cases recorded during the previous quarter. As bearing on the subject of the prevalence of typhoid fever in this city, it may not be uninteresting to refer briefly to the conclusions drawn by Sir Charles Cameron and Dr. Grimshaw, in a paper compiled by them on the distribution of this fever in Dublin. They point out that a considerable portion of the Dublin district is situated on gravel, which is superimposed on a stratum of clay, and that, of the fatal cases of typhoid fever which took place from 1882 to 1887, the deaths on the gravel beds were at the rate of 1 in 365 of the population, while off the gravel the rate was only 1 in 531, being as 1 to 1½—in other words, the chances of dying of enteric fever, to an inhabitant of the area situated in the gravel beds, were half as much more than if he lived elsewhere in the city. One reason, they state, why we might expect to find a greater prevalence of enteric fever in the gravel, is the fact that it lies at a lower elevation than the clay, and the gravels are waterlogged for a large portion of the twenty-four hours. The mouths of all the main sewers that discharge their contents into the Liffey are furnished with valvular tidal gates which close automatically. Now when the tide rises to a certain height, the sewers which enter the river below the bridges are, on the average, closed for more than twelve hours daily, and during this time all the sewage entering the sewers from houses and other places remains therein, except in some of the easterly sewers, which are connected with pumping stations. It is, however, not only the flow of sewage which is arrested for many hours daily, the subsoil water in the gravel in the low-lying localities is prevented from flowing seawards, and so the soil is always more or less waterlogged.

COUNTY INFIRMARIES IN IRELAND.

Repeated attacks have of late years been made against the presentments for grants annually submitted towards the support of several of the county infirmaries in Ireland. These institutions are of great value, and it is a matter of deep regret that in some instances the grants to some of them have not been passed, a result which has hampered the governors considerably, and caused great injury to the class of patients admitted to these institutions. At a meeting of the Coroffin guardians recently a resolution was adopted requesting the governors of the County Clare Infirmary to postpone the election of a surgeon, to afford the cesspayers an opportunity of expressing their opinions at the coming presentment sessions on the propriety of continuing the presentment of £1000. It is sincerely to be hoped that the opponents to the grant may be unsuccessful.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

The sixth volume of the Transactions has been issued this week, it having been delayed for a considerable time owing to the illness of a gentleman who was engaged in the preparation of an important map in relation to the distribution of enteric fever in Dublin. There are some interesting papers, particularly those which were read in the Surgical Section of the Academy. For example: a case of traumatic aphasia successfully treated by the removal of a blood clot from the interior of the cerebrum, by Dr. Ball; on traumatic subdural abscess of the brain, by Sir William Stokes; on the treatment of advanced conditions of equino-varus, by Mr. Swan; on supra-pubic lithotomy and vesical suture, by Dr. Kendal Franks; two fatal cases of foreign bodies in the œsophagus, by Mr. Thomson; and a paper on penetrating wound of stomach and transverse meso-colon, by Dr. Ball.

Dublin, Jan. 8th.

PARIS.

(From our own Correspondent.)

ALCOHOLISM.

OWING to the great increase of alcoholism in this country, the authorities are becoming alive to the importance of employing all the means in their power to put down this degrading vice. The legislative bodies have taken up the subject, and the Senate has ordered a commission to investigate the matter. A report has been drawn up by the committee, and M. Léon Say, the reporter, after having extolled the establishment of temperance societies in England and the United States, stated that the abuse of alcohol is not the only cause of the development of alcoholism, which is also due to the bad quality of the alcoholic drinks in vogue. These are made with the commercial alcohols and artificial bouquets which, since the invasion of the vine by the phylloxera, have been substituted for the alcohols of wine. The commercial alcohols are extracted from almost any substance that is capable of undergoing the vinous fermentation, and the wines now sold are largely manufactured with these alcohols and tinted with colouring matters to imitate the genuine varieties. The change in the nature of the product consumed has coincided with the appearance of new morbid symptoms. These alcohols are known to be extremely deleterious, and to their use is attributed the great increase of crime and insanity. The baneful influence of spirit drinking, however, is not confined to the actual consumers, but is recognised in their children in a variety of ways, even extending to the second and third generation. Thus we find that the children of drunkards are subject to nervous and other diseases, in the form of epilepsy, hysteria, and other degenerative processes which take place in the organism. To remedy the existing state of things, the commission proposed the following measures:—(1) A diminution of the number of wine-shops, and the augmentation, by means of a tax, of the price of alcohols; (2) the abolition of private

distillation and the prohibition of the sale of all spirituous liquors which are known to be dangerous to health; and (3) that all alcoholic products should pass through establishments duly authorised for the purpose of purification.

In connexion with this subject, I may here refer to a thesis lately submitted by Dr. F. Combemale to the Faculty of Montpellier for the doctorate. It is entitled "La Descendance des Alcooliques," and is divided into three parts. In the first the author studies heredity—"this biological law which, in concert with adaptation, under the guise of transformation, explains the greatest number of physical or psychical facts, physiological or pathological, which one meets in the study of the generation of individuals, of families, of races, and of species." He then sketches the physiological and pathological effects of alcoholism on the individual and on the race. "Alcoholism," he says, "whether it be acute or chronic, exercises on the organism effects manifesting themselves symptomatologically by the diminution of vitality, premature ageing of the organs, ending anatomically in premature organic decay by steatosis of the parenchyma or by irritative processes of the serous membranes." But, says the author, its effects do not stop here; heredity transmits temporary or durable characters which a person acquires by abusing, accidentally or habitually, alcoholic drinks. The descendants of inebriates will acquire from their parents, if they are procreated or conceived during a state of intoxication, nervous or psychical troubles; and, if they are procreated or conceived during a state of chronic alcoholisation, physical or mental alterations in relation with the organic degree of this alcoholisation. As to the mechanism of the action of alcoholism, this, according to the author, is explained by the lesions or morbid modifications which the generative organs undergo in all the stages of alcoholism, the greatest effect of maternal alcoholism involving the most intimate connexions which bind the product to the mother. The effects of alcoholism on progeniture are treated of in the second part of Dr. Combemale's thesis. Alcoholism of parents, he says, might act on the body and on the health of the descendants in producing deformities, in modifying the exterior characters of the individual, in diminishing his degree of resistance to disease, in producing sterility. It may also and principally act on the intellectual state of descendants, either in producing constitutional states, idiocy, anomalies of the faculties of the mind (will, passion, intelligence), or in producing functional states (mental alienation, delirium, &c.). Dr. Combemale concludes his thesis by a study of the descendants of alcoholic subjects from a medico-legal point of view.

The Bureau of the Academy of Medicine for the year 1889 has been constituted as follows:—Dr. Maurice Perrin, Vice-President, succeeds to the Presidency; Dr. Moutard-Martin has been elected Vice-President; and Dr. Féréol Annual Secretary. Dr. Bergeron remains Perpetual Secretary.

M. Pasteur, owing to the indifferent state of his health, has, for the second time, sent in his resignation as Perpetual Secretary of the Academy of Sciences.

Paris, Jan. 8th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a quarterly meeting of the Council, held on Thursday last, the minutes of the last meeting of the Council were confirmed.

The minutes of the Museum Committee of the 7th inst. were read and confirmed. Permission was given to a gentleman to use the new work-rooms for investigations described by him, on the understanding that experiments on living animals, or the retention of living animals on the College premises, would not be permitted.

The President submitted to the Council a scheme by the Editors of THE LANCET for the establishment, at their expense, of "THE LANCET Medical Fund," with which it is proposed that the President of the College should be associated; and to take the decision of the Council as to whether they will consent to such association. It was unanimously agreed that the President for the time being be one of the almoners for "THE LANCET Medical Fund," subject to the approval of the legal adviser.

A letter was read from Mr. Magnus Ohren, requesting a contribution to the funds of the National Benevolent Institution. To this the Council replied that they had no funds at their disposal for such purpose.

It was agreed that the forthcoming lectures be delivered at 5 o'clock P.M. The President stated that, as the second Thursday of next month—viz., Feb. 14th—will be the date of the delivery by Mr. Henry Power of the Hunterian Oration, at 3 P.M., the ordinary Council meeting in that month will be held on Tuesday, the 12th, at 4 P.M.

The Council then proceeded to the consideration of the motion by the senior Vice-President relating to a work published by a Member of the College, and resolved that the following letter be forwarded to him:—

"The attention of the Council of the Royal College of Surgeons of England has been called to a volume published by Sir Morell Mackenzie, which bears the title 'The Fatal Illness of Frederick the Noble,' and the Council consider it to be their duty to express their deep regret that any Member of the College should have allowed himself to publish in such a manner the charges that are therein made against distinguished surgeons who were his colleagues in the case. The Council have not sufficient means of forming a conclusive judgment on the facts which are in dispute, but in their opinion no provocation, such as Sir Morell Mackenzie alleges, can justify this publication or the language employed in it."

There were 21 votes for this resolution, and 2 against it; one did not vote.

The Council then proceeded to the consideration of the motion by Sir Spencer Wells, which was seconded by Mr. Lund: "That the resolution of the Council of May 8th, 1884, 'That an annual meeting of the Fellows and Members be called, to which a report from the Council shall be presented,' be rescinded, and that the annual meeting of Fellows and Members be discontinued." To this an amendment was moved by Mr. Cadge, and seconded by Mr. Durham: "That the consideration of the motion be postponed until after the next annual meeting of Fellows and Members." This was not carried, 10 voting for and 10 against the motion. The original motion was also lost, 14 voting against and 5 for it.

The motion by Sir James Paget, "That a conversazione be held at the College at some convenient date during the ensuing summer," was carried unanimously, and the President, Vice-Presidents, Sir James Paget, Sir Spencer Wells, and Mr. Marshall were appointed a committee to give effect to the resolution.

A motion by Sir W. MacCormac, "That a certificate be required from candidates for the diploma of Member of the College of having themselves performed operations on the dead subject to the satisfaction of the teachers of practical surgery, and giving the number of operations performed by each candidate," was carried by 15 to 2, the resolution to be communicated to the Royal College of Physicians.

Mr. Macnamara's motion, "That the President be requested to communicate with the Secretary of State for War in favour of dating the commissions of medical officers who have already entered or are about to enter the Army Medical Department from the time of their joining at Netley," was carried *nem. con.*

A letter was read from one of the joint secretaries of the Association of Members of the College, requesting (by the direction of the committee) the Council to summon a general meeting of the corporation in order to consider the necessary course of Parliamentary action with a view to obtaining certain alterations in the constitution of the College. The Council replied that they did not consider it expedient to convene a meeting for the purpose mentioned in this letter.

FOOTBALL CASUALTIES.—On the 5th instant, at Kendal, during a match of Rugby football between teams representing Kendal town and Ambleside, a young man named Backhouse, in charging the ball, collided with another player, and fell to the ground stunned, sustaining a severe injury to his neck. He was removed to the hospital, and serious consequences are apprehended. At Reading, on Saturday, whilst playing in a football match, a player named Allen was charged to the ground and his shoulder partially dislocated.

Obituary.

CHARLES THOMAS BLACKMAN, M.R.C.S., L.S.A.

WE announced with much regret in a recent number the death of Mr. Blackman at his residence, North Holme, Willesden-lane, Brondesbury. He was educated at a school in Cumberland, and received his medical education at the London Hospital, where he held the office of house surgeon, and to which institution he was deeply attached for the remainder of his life. For a short time he practised near Banbury in Oxfordshire. But he soon purchased a practice in the east end of London, and continued to labour there for wellnigh forty years. Some years since he went to live at Highbury, but continued his appointment as public vaccinator of the Whitechapel Union. Mr. Blackman held other offices. He was appointed by the Privy Council a teacher of vaccination. If his efficiency as a public vaccinator and teacher of vaccination may be judged by his readiness to supply his friends with pure and satisfactory lymph, he was indeed a good public servant. He was for some time surgeon-accoucheur of the Royal Maternity Charity. For many years he acted as medical adviser to Messrs. Chaplin and Horne, the large carriers, and latterly as consulting surgeon to the London Parcels Delivery Company and the Guardian Horse Insurance Company. The poor of the East-end had a good friend in him, ever ready to give his help in cases where there was any difficulty about remuneration. Mr. Blackman, after his removal to Highbury, did not practise as actively as before, but continued to take an interest in medical questions, and to attend down to the present session the meetings of the Islington Medical Society. Wherever he resided he commanded the esteem of his neighbours and his medical brethren. He was subject to severe attacks of gout. His last illness was of short duration, Mr. Blackman having been out shortly before his death. He leaves a widow and several sons and daughters, whose grief will be shared by a large number of friends both in and out of the profession.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following candidates passed the Second Examination at a meeting of the Board of Examiners on the 7th inst. :—

Anatomy and Physiology.—C. A. Altmann, student of Melbourne University; J. B. Bate and C. G. R. Wood, of the Bristol Medical School; J. E. C. Allott, of the Sheffield School of Medicine; W. E. Sprague, of Toronto; A. L. Kerr, of Sydney and Edinburgh Universities; G. O. Moore, of Melbourne and Edinburgh Universities.

Anatomy only.—W. J. Bacque, E. H. Clarke, J. M. Mortimer-Thomas, E. H. C. Pauli, William Taylor and B. C. Kendall, of Bristol Medical School; William Hall and W. H. Buckley, of Owens College, Manchester; H. M. Joynson, W. S. Finch, and C. R. Palmer, of University College, Liverpool; A. H. Bradshaw, of Leeds School of Medicine; B. B. Thorne-Thorne and F. E. Withers, of St. Bartholomew's Hospital: H. E. Tomlinson, of Leeds and Mr. Cooke's School of Anatomy and Physiology.

Physiology only.—B. J. Singh, of Lahore Medical College; L. C. Brohier, of the Ceylon Medical School; E. G. E. O'Leary and A. S. St. John, of Bristol Medical School; J. S. Sewill, J. A. Evans, G. R. Jones, and G. F. Knipe, of University College, Liverpool; W. Pearson, of Owens College and Mr. Cooke's School of Anatomy and Physiology; H. A. Howes and H. Greaves, of Owens College, Manchester; H. B. Rowbotham and C. F. Woodbridge, of Queen's College, Birmingham; Henry Cross, of Sheffield Medical School; S. G. Felce, of Cambridge and St. Mary's Hospital; A. L. Allworth, of Guy's Hospital; Victor A. L. E. Corbould, of Charing-cross Hospital; R. S. McDougall Pullen, of St. Bartholomew's Hospital; H. M. Abel, of St. Thomas's Hospital.

Passed on the 8th inst. :—

Anatomy and Physiology.—W. C. Loos, student of University College; W. C. Ellis, of St. Thomas's Hospital; L. A. Winter, of St. Bartholomew's Hospital; H. W. Gibson, of Middlesex Hospital; John Mulvany, of London Hospital; and E. J. Lang, of Guy's Hospital.

Anatomy only.—E. B. Hartpell, of Bristol Medical School; C. E. M. Kelly, of Owens College, Manchester; J. H. Adams, of the London Hospital; B. W. N. Gowring, R. E. Wicks, and C. G. L. Dähne, of St. Bartholomew's Hospital; Albert Reeves and H. S. Archdale, of Guy's Hospital; H. L. Cane-Smith, of Charing-cross Hospital; G. J. Rutherford, of Middlesex Hospital; E. W. Lewis, of St. George's Hospital and Mr. Cooke's School of Anatomy and Physiology; A. W. Read, of St. George's Hospital.

Physiology only.—C. E. Brooks, of Owens College, Manchester; Robert Edwards, of the Bristol Medical School; G. M. Mellor, of the Leeds School of Medicine; D. F. Williams, of University College, Liverpool; A. F. Gervis and W. T. Pauling, of St. Thomas's Hospital; C. J. Richards, of University College; J. R. Preston and P. O. Ambrose, of London Hospital; F. J. O. Stephenson and G. J. B. Blick, of St. Mary's Hospital; E. C. MacLeod, of Westminster Hospital; H. E. Worthington, of Guy's Hospital; G. D. Thomson, of St. George's Hospital; C. C. Eardley-Wilmott, of St. Bartholomew's and Mr. Cooke's School of Anatomy and Physiology.

Passed on the 9th inst.:—

Anatomy only.—W. G. West, C. H. Willis, F. E. Swinton, Frank Scorer, and T. Gresswell, students of St. Bartholomew's Hospital; H. E. Simpson, of St. Bartholomew's and Mr. Cooke's School of Anatomy and Physiology; E. H. Willock, of St. Thomas's Hospital; E. H. Howell and F. W. Walters, of the London Hospital; J. R. Spensley and F. G. Scott, of the London Hospital and Mr. Cooke's School of Anatomy and Physiology; L. N. Gibbes, of St. George's Hospital; Harvey Francis, C. A. Lees, and S. W. Sweetnam, of St. Mary's Hospital; A. G. Buchanan, W. H. Dixon, H. L. E. Wilks, and T. S. Jackson, of Guy's Hospital; R. E. P. Squibbs, Waring Robinson, H. W. Kendall, and S. C. Smith, of Middlesex Hospital; J. H. Dempster, A. Hugh Minton, and G. F. Read, of King's College; R. T. Bakewell, R. H. Griffiths, and W. T. Chambers, of University College.

Physiology only.—G. H. Rowlby, of Toronto Medical College; J. Hedley Sims, of St. Thomas's Hospital; F. L. Underwood, of University College; James Yeomans, of Bristol and University College; J. Newton Martin, A. D. Humphry, and E. W. Everett, of St. Bartholomew's Hospital; E. M. Knott, H. R. Carter, H. R. Power, T. Heywood, and Atwood Thorne, of St. Mary's Hospital; A. A. Grosvenor, of Guy's Hospital and Mr Cooke's School of Anatomy and Physiology; A. T. Jago and E. W. Wheatcroft, of Guy's Hospital; W. E. Passmore, of Westminster Hospital; James McNeal and Fred. Ellis, of London Hospital; F. B. Shaw, of Middlesex Hospital; Cholmondely Webb and Arthur F. Heaton, of St. George's Hospital.

VACCINATION GRANT.—Dr. E. M. Spooner, of Blandford, has received the Government grant for successful vaccination (fourth time).

NAVAL MEDICAL SUPPLEMENTAL FUND.—At the quarterly meeting of the directors of the fund, held on the 8th inst., T. N. Pickthorn, Esq., Inspector-General, in the chair, the sum of £90 was distributed among the several applicants.

HOSPITAL ACCOMMODATION IN CHILI.—Complaints are made that far more hospital accommodation is required in Santiago, Chili, the two male hospitals and the one female hospital already existing being usually filled to overflowing, and having to refuse numbers of deserving cases almost daily.

SEA WATER FOR MANCHESTER AND SALFORD.—We understand that the Blackpool Sea Water Company has made arrangements with the railway companies to supply sea water, in casks, to be delivered in Manchester and Salford. The water will be daily filtered on the shore, and be perfectly clean and pure.

DATES UNFIT FOR FOOD. — Dr. Collingridge, medical officer of health for the port of London, obtained at Grays, Essex, on the 29th ult., a magistrate's order for the destruction of 25,000 boxes (total weight nearly 600 tons) of dates unfit for food. They had formed part of a cargo of a steamship which had been sunk in the river.

PENSIONS TO NURSES.—Mr. James Harrison of Liverpool and Dornden, Tunbridge Wells, has announced his intention of giving £5000 towards founding a fund for the payment of pensions to nurses of the Liverpool Training School and Home for Nurses in connexion with the Royal Infirmary. Mr. Henry Tate and Mr. W. Rathbone have also contributed £1000.

DISUSED BURIAL GROUNDS.—Within the metropolitan area, says the *City Press*, are about two hundred disused burial grounds, which, at a comparatively moderate outlay in labour and expenditure, might be turned into places of recreation. Already the Metropolitan Gardens Association has opened seventy-one spaces which formerly were old burial grounds.

COFFEE ASSOCIATION—A meeting of the committee of this Association was held at Plowden-buildings, Temple, on the 7th inst., when the question of seeking the intervention of Parliament was discussed with a view to compelling vendors of coffee to affix a statement showing on each package the proportion of pure coffee and admixtures it contained. It was ultimately left to the chairman and the hon. secretary to take such steps from time to time as they might think fit in furtherance of the general objects of the Association.

THE PROPOSED HOSPITAL AT FOLKESTONE.—With the assistance of Lord Radnor the authorities at Folkestone have just decided upon a site for a new hospital near Radnor-park. The hospital, which is to be a memorial of the Queen's Jubilee, will, it is understood, be a very handsome building, and nearly £14,000 has been subscribed towards the cost.

PRESENTATION.—On the occasion, at this festive season, of an evening party for the staff and friends, held at the Brighton Sanatorium on the 26th ult., Dr. Newsholme, medical officer of health for the borough, presented Dr. Hussey, on his retirement from the medical officership of the Brighton Borough Fever Hospital, as a mark of esteem from the steward, matron, and staff, with a handsome electro-plate soup tureen and ladle and a plated inkstand.

FIRE AT THE LEEDS GENERAL INFIRMARY.—A fire broke out in this institution on Sunday night in the nurses' bedroom on the second floor. Dr. Littlewood and the members of the resident medical staff, with a number of nurses, having unavailingly tried to extinguish the flames, Superintendent Baker was informed of the outbreak, who, with his brigade, promptly arrived, and soon got the flames under. It was found that a bed and the bedclothes had been on fire, caused by a defect in the fireplace, the skirting-board having become ignited. The nurses who occupied the room are the chief sufferers. The damage is not serious, and is covered by insurance.

LITERARY INTELLIGENCE.—*La Presse Médicale Belge* is losing its editor, Dr. Thiry of Brussels, who founded it forty years ago, and who has edited it ever since. The new editors, Drs. Marique, Dallemagne, Gevaert, and Boulengier, who have for some time been connected with the journal, are introduced to the readers by Dr. Thiry in the last number for 1888. As it is only an eight-page sheet, it is to be hoped that the four gentlemen named will not be overworked.—*La Riforma Medica*, the Naples medical daily paper, will from the present time be edited by Dr. Alfredo Rubino, Professor Rummo, the founder, retaining only the general direction. In connexion with *La Riforma*, another publication, the *Archivio Trimestrale Italiano*, is about to appear. The editor of this will be Dr. Ferdinando Matoni.

ROYAL SOCIETY OF THE MEDICAL AND NATURAL SCIENCES, BRUSSELS.—At the meeting of this Society, held on Nov. 5th, 1888, the President, M. Héger, announced the donation of a sum of money by an anonymous benefactor, to be devoted to the promotion of four "concours," each of which is to close on Jan. 1st, 1890, the award in each case being 500 francs. The questions suggested and subsequently approved by the Society were as follows:—1. To determine the value, in electrical units, of the normal currents existing in living tissues, such as nerves, muscles, and glands. 2. To determine the conductibility of organic fluids (lymph, plasma, serum) for electric currents of low tension, and, if possible, also that of the tissues. 3. To summarise the work hitherto done upon electrical endosmosis, and to investigate the possible applications of the theory of electrical endosmosis to the phenomena of absorption and secretion in the living organism. 4. To determine whether the intimate structure of protoplasm presents a variable complexity in harmony with the complexity of its functions.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Mr. E. A. D. Brooshooft, of Kirkell, East Riding, has left a legacy of £5000 to the Sheffield Infirmary, and £1000 to the Public Hospital. By the will of the late Rev. Walter Sneyd, of Keele Hall, Staffordshire, and Portland-place, London, £500 have been bequeathed to the North Staffordshire Infirmary, and £100 to the Convalescent Home. The Salters' Company has given a donation of £10 10s. to the Hospital for Women and Children, Waterloo-bridge-road. The treasurers of the Dundee Royal Infirmary have received from the trustees of the late Mr. George Duncan, ex-M.P. for Dundee, £600. The same institution has received from the estate of the late Miss Charlotte Paton, Wellgate, Dundee, the sum of £279 12*s.* 4*d.* The trustees of the late Mr. John Sinclair, merchant, Aberdeen, have handed to the Aberdeen Dispensary £674. The late Mrs. Hobhouse, of Fortrose, has left £10 to the Northern Infirmary, Inverness. The secretary to the Western Infirmary, Glasgow, has received from an anonymous donor £500, and from Mr. Archibald Walker, of Crown Terrace, £50.

COLONEL NORTH (to whose generous gifts to the Borough of Leeds we referred last week) has, it is stated, acquired extensive mineral properties in Glamorganshire, and has received two presentations from a large number of employés at Maesteg and Tondu, in acknowledging which he has promised funds to found a cottage hospital and other public institutions.

MEDICAL OFFICERS OF HEALTH IN THE MIDLANDS.—The Birmingham and Midland Branch of the Society of Medical Officers of Health held their annual meeting on the 3rd inst. at the Council House, Birmingham. Dr. Bostock Hill, retiring president, occupied the chair during the transaction of the annual business. This branch now numbers thirty-two members. During the past year an amalgamation of the North-Western and the Yorkshire and the Metropolitan Associations has been effected, and has thrown much vigour into the work of the Association. Mr. Hollinshead was elected president for the ensuing year, and on taking the chair delivered an interesting and practical address on "The Present Sanitary Condition of Dwellings in relation to the Public Health." Subsequently Dr. Page read a paper on "The Injustice to Medical Officers of Health in the Present Insecurity of Tenure of Office," after which the meeting terminated.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANDERSON, REGINALD B., M.R.C.S., L.S.A., has been appointed Medical Officer of the 4th District, Bodmin Union.

CURRIE, ROBERT, L.R.C.P., L.M., L.R.C.S.Edin., has been appointed Medical Officer of the Ballymena Dispensary, co. Antrim, vice Ross, resigned.

DA COSTA, F. X., M.R.C.S., L.R.C.P., L.M. & S., Bombay, has been appointed House Surgeon to Charing-cross Hospital.

DAWSON, T. MOORE, L.R.C.P., L.R.C.S.Edin., has been appointed Police Surgeon for the South District of Liverpool, vice Pugh.

DOWNIE, J. WALKER, M.B., F.F.P. & S.G., has been appointed Surgeon to the Department for Diseases of Throat and Nose in the Glasgow Western Infirmary, vice J. Alexander, M.D., resigned.

DRURY, A. E., L.R.C.P., L.R.C.S.Edin., has been appointed Medical Officer of the Weymouth District, Weymouth Union.

EDEN, RICHARD A. S., M.B. & C.M.Aberd., has been appointed Medical Officer of Health, Wilsden, Yorkshire.

HALLEY, WILLIAM, M.R.C.S., L.R.C.P., has been appointed Resident Obstetrical Officer to Charing-cross Hospital.

HEATH, GEORGE YEOMAN, M.D., M.B., D.C.L., F.R.C.S., has been appointed Professor of Surgery at the University of Durham.

HUNT, A. H. W., L.R.C.P., has been appointed Junior House Surgeon to Westminster Hospital.

HYATT, J. T., L.R.C.P.Edin., M.R.C.S., has been reappointed Medical Officer of Health of Shepton Mallet Union District.

JEEVES, FRANK, L.R.C.P.Lond., M.R.C.S., has been appointed Assistant Medical Officer of the Workhouse, Sheffield Union.

NASH, W. GIFFORD, M.R.C.S., L.R.C.P. Lond., has been appointed Obstetric House Physician to Middlesex Hospital.

OLIVER, THOMAS, M.A., M.D., M.R.C.P., has been appointed Professor of Physiology at the University of Durham.

POWELL, W., L.R.C.P., M.R.C.S., has been appointed Senior House Surgeon to Westminster Hospital.

WALKER, ALEX. H., M.R.C.S., L.R.C.P., has been appointed House Physician to Charing-cross Hospital.

WALKER, JOHN GIBBON, has been appointed House Surgeon for 1889 to Sir P. Dun's Hospital, Dublin.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, London.—Resident Medical Officer. Salary £80 per annum, with board and residence.

COUNTY ASYLUM, Rainhill, near Liverpool.—Junior Assistant Medical Officer. Salary commencing at £105 per annum, with furnished apartments and board.

COUNTY OF CLARE INFIRMARY.—Surgeon. Salary not exceeding £94 a year, with a residence attached.

CROYDON UNION.—Medical Officer and Public Vaccinator. Salary £45 per annum, with the usual medical fees as prescribed by the order of the Local Government Board.

DENTAL HOSPITAL OF LONDON, Leicester-square.—Dental Surgeon.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—House Surgeon. Salary £70 per annum, with board, washing, and residence.

GENERAL HOSPITAL, Birmingham.—Assistant House Surgeon. No salary, but residence, board, and washing provided.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—An additional Physician to Out-patients.

HANTS COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary £100 per annum, with furnished apartments, board, washing, and attendance.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Medical Registrar and Pathologist, for one year; an honorarium of 50 guineas being voted at the expiration of that term.

HOSPITAL FOR WOMEN, LONDON SCHOOL OF GYNÆCOLOGY, Soho-square, London.—Clinical appointments falling vacant in February and March.

JAFFRAY SUBURBAN BRANCH OF THE GENERAL HOSPITAL, Gravelly-hill, near Birmingham.—Resident Medical Officer. Salary £150 per annum, with board, residence, and washing.

LIVERPOOL EYE AND EAR INFIRMARY.—House Surgeon. Salary £80, with residence and maintenance in the house.

MANCHESTER ROYAL INFIRMARY, DISPENSARY, AND LUNATIC HOSPITAL OR ASYLUM.—Honorary Assistant Physician.

MASON SCIENCE COLLEGE, Birmingham.—Demonstrator in Physiological Department.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, London.—House Physician. Salary at the rate of £50 per annum, with board and lodging. Appointment for six months.

ST. GEORGE'S HOSPITAL, London.—Lecturer on Chemistry.

SUSSEX COUNTY HOSPITAL, Brighton. — Physician and Assistant Physician.

UNITED KINGDOM BAND OF HOPE, 4, Ludgate-hill, E.C.—Lecturers, duly qualified and total abstainers.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W Physician to the In-patients.

W. W., 3, Trafalgar-place, Devizes, Wilts.—Medical Officer for a club at Trowbridge. £30 first year, £40 second year, and £50 third year guaranteed (not including midwifery cases).

Births, Marriages, and Deaths.

BIRTHS.

CHAVASSE.—On the 6th inst., at Barnt Green, Worcestershire, the wife of Thomas Frederic Chavasse, M.D., of a son.

LAWRENCE.—On the 3rd inst., at Maresfield-gardens, the wife of Lawrie A. Lawrence, F.R.C.S., of a son.

LAWTON.—On the 4th inst., at Poole, Dorset, the wife of Herbert A. Lawton, L.R.C.P. Lond., D.H.P., &c., of a son.

MARRIAGES.

ATKINSON—GREEN.—On the 1st inst., at St. Peter's, Peterchurch, Herefordshire, Thos. Reuel Atkinson, M.R.C.S., to Emma Elizabeth Green, daughter of the late Rev. John Green, M.A., Rector of Little Leighs, Essex.

BULL—SLANEY.—On the 8th inst., at St. Stephen's Church, Twickenham, George Coulson Bull, M.B., F.R.C.S., of Newcastle, Staffordshire, to Mary Alice, daughter of Robert Slaney, Solicitor, of Newcastle, Staffordshire.

EDWARDS—JONES.—On the 2nd inst., by special licence, Thos. Edwards, M.B., of The Grange, Grinshill, Salop, to Annie Kate, eldest daughter of Mr. Horatio Jones, Shrewsbury.

HOSKYN—ROSS.—On the 3rd inst., at Fitzroy-avenue Church, Belfast, Donald T. Hoskyn, M.B. Lond., Surgeon, R.N., to Annie Ross, of Ashley-avenue, Belfast, youngest daughter of the late Samuel Ross, Esq., of Newtown-stewart, co. Tyrone.

TIDEY—BOOTH.—On the 8th inst., at St. Mary's, Twickenham, Stuart Alexander Tidey, M.B. Lond., son of Alfred Tidy, of Glenelg, Acton, to Georgiana, daughter of George Booth, of Grosvenor House, Twickenham.

DEATHS.

ASHER.—On the 7th inst., at Endsleigh-street, W.C., Asher Asher, M.D., in his 52nd year.

BARRETT.—On Christmas morning, at Slough, Bucks, Sarah, twenty-one years widow of the late C. P. Barrett, of Eton, Bucks, solicitor, in her 86th year.

BRYAN.—On the 3rd inst., at Thornlea, Cambridge, James Bedingfield Bryan, M.D., aged 76, after 18 months' suffering.

CORNWALL.—On the 7th inst., at Keble House, Fairford, James Cornwall, F.R.C.S., second son of the late Charles Cornwall, Surgeon, of the same place, aged 68.

EDGER.—On the 7th inst., at Moorside, Hartlepool, Paul Maude Edger, M.R.C.S., L.S.A. Lond., in his 84th year.

INGLIS.—On the 2nd inst., at Albany-street, Edinburgh, Archibald Inglis, M.D., in his 88th year.

SANDERS.—On the 7th inst., at the Infirmary, St. George-in-the-East, John W. Sanders, M.D., F.R.C.S., Medical Superintendent, aged 30.

WHITE.—On the 3rd inst., at his residence, Fowey, Cornwall, Edmund Stillingfleet White, M.R.C.S., M.A.H., aged 76.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, January 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Annual General Meeting. Election of Officers and Council for the ensuing year. Reception of Reports from Treasurer, Librarian, and Curator. Casual communications by Messrs. Wm. Hern, C. A. Hayman, E. Lloyd Williams, and Boyd Wallis.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Herbert Allingham: Some Important Facts in Inguinal Colotomy.—Dr. Isambard Owen will exhibit the Maps forming the Report of the Collective Investigation Committee on the Geographical Distribution of Rickets, Acute Rheumatism, Chorea, Cancer, and Urinary Calculus.

Tuesday, January 15.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M.

PATHOLOGICAL SOCIETY OF LONDON.—Annual Meeting for Election of Officers and Council for 1889. Adjourned Debate on the Morbid Anatomy and Pathology of Chronic Alcoholism. Specimens:—Mr. W. R. Williams: Neoplastic Processes in Trees.—Dr. Angel Money: Chronic Syphilitic Meningitis, Arteritis, and Cerebral Atrophy in a Boy aged Four.—Mr. Adams: So-called Congenital Dislocation of the Hip. Card Specimens:—Mr. Lennox Browne: Congenital Growth of Larynx.—Mr. Dunn: Synostosis of Cervical Vertebræ.—Mr. Sydney Jones: (1) Chylous Fluid from Hydrocele; (2) Nasal Calculus.

Wednesday, January 16.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M. Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical visits on Wednesday and Saturday at 9.15 A.M.

SOCIETY OF ARTS.—8 P.M. Colonel Hozier: The Channel Tunnel.

Thursday, January 17.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Friday, January 18.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. Dr. Henry Tomkins: Notification of Infectious Disease.

Saturday, January 19.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, January 10th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Jan. 4	30·70	S.E.	34	33	..	37	31	..	Foggy
,, 5	30·45	S.W.	29	..	..	32	27	..	Hazy
,, 6	30·09	S.W.	28	..	..	32	25	..	Foggy
,, 7	30·06	S.W.	28	..	..	40	24	..	Foggy
,, 8	29·93	S.E.	39	38	..	47	28	..	Foggy
,, 9	29·53	S.W.	47	45	65	50	38	·02	Cloudy
,, 10	29·36	N.W.	40	39	..	39	39	·20	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

PERSONS POSING AS "ENGLISH PHYSICIANS" ABROAD.

A CORRESPONDENT writes:—"It is desirable to offer a word of warning to the public, and more especially to invalids who seek change of climate in health resorts abroad, on the above subject. The report of a case has just reached me of an individual who posed as an English physician during the whole season last year, while possessing no English medical or surgical diploma whatever. It would therefore be advisable for such invalids to ascertain on unquestionable authority the professional status of their physician before placing themselves under treatment."

Alex. Reid, M.B.—The Medical Board of Malta, we believe, compel all persons wishing to practise to pass an examination. We have no information regarding the subjects required.

Mr. W. G. Williams.—Maudsley and Carpenter.

Mr. J. Collier.—If possible, next week.

THE EXAMINATION IN CHEMISTRY AT THE ENGLISH CONJOINT BOARD.

To the Editors of THE LANCET.

SIRS,—As a teacher of chemistry I desire, with your permission, to enter a protest against some of the questions given in the chemistry and physics paper of Jan. 1st by the Conjoint Board in England.

The first question to which I take exception is—"Describe the construction of the ordinary medical (*sic*) induction coil for the production of the faradaic current." What is meant by a "medical" induction coil? If Ruhmkorff's is intended, why not say so? for what can a student in his first year be expected to know about the forms of medical electrical apparatus?

Again, Question 6—"Describe the preparation of dilute hydrocyanic acid, give the formula and properties of this acid, and state how you would estimate the strength of a sample of it"—requires a knowledge of quantitative analysis to answer the latter portion of it, and no such knowledge is, according to the synopsis issued by the Board, expected of the candidates. Moreover, the synopsis does not include the chemistry of brewing; but Question 7—"Describe the principal chemical changes that occur in the process of brewing. How can the amount of spirit in a sample of beer be determined?"—shows that the examiners are quite regardless of the fact.

If students are to be questioned on the chemistry of the art of brewing and the estimation of the products, we may, I suppose, expect questions in the future upon the chemistry of other arts, such as calico printing, baking, glass staining, dyeing, photography, &c., with quantitative estimations equally various. Either the synopsis should be adhered to, or it should be abolished. At present it is merely a snare.

I am, Sirs, yours truly,

Jan. 7th, 1889. X. Y. Z.

THE OATH OF HIPPOCRATES.

THE most remarkable clause in this very remarkable document is that in which the young Asclepiad swears as follows:—"Whatever I see or hear in society during the practice of my profession or even outside that practice, I will keep silence as to those things which ought not to be divulged, deeming discretion in such matters to be a solemn duty"; and hardly less elevated is the commentary of Littré on the whole series of articles of which the oath, the ὅρκος, or *Sacramentum*, is made up: "The medical profession is one of the most difficult which man can undertake. Grave responsibility, limited powers, obscurity in diverse cases, fleeting opportunity, the impossibility of retracing one's steps—all forbid him to play with the dangerous 'serpent of Epidaurus.' Add to this the personal risks inseparable from medical study and practice; add to this the incessant contact with suffering and death; add again the scientific training which strengthens and develops the mind; add once more the humane sentiments which direct the practice of an art essentially beneficent—and you will cease to be astonished that a profession so grave has, from a hoary antiquity, inspired a script so exalted in its character as the Oath of Hippocrates. But the Greeks—and this evokes our admiring wonder—the Greeks who by being the first to introduce the physiological element into medicine which, up to their day, was empirical, have left so powerful an impress on its scientific future, have also been the first—for us denizens of the West at least—to give character to its moral future by formulating on the threshold the duties essential to its practice." A convenient text of the Oath of Hippocrates is given in the "Golden Treasury of Greek Prose," edited for the Clarendon Press by Messrs. R. S. Wright and J. E. L. Shadwell, of the University of Oxford, who, while suppressing a few words for the lay reader, have by way of compensation added some useful notes for the medical.

Dr. J. D. Greenlees.—The report has not yet come to hand, but will probably be noticed when it arrives.

Dr. Silk.—Very shortly.

"A USEFUL HINT."

To the Editors of THE LANCET.

SIRS,—I have read with much interest Mr. Buck's "useful hint" as to removing steel rings from fingers. But a former neighbour of Mr. Buck—the late Mr. Hovell—could have told him a much easier and safer method. I was a fellow student, and had the pleasure of meeting him and a distinguished number of provincial surgeons, who related cases that had puzzled them, when Mr. Hovell asked the question what their treatment would have been in a similar case to that related by your correspondent. Only one surgeon present knew the proper method. In Mr. Hovell's case, as related by him, he was called on late one evening by a man who had slipped a steel ring on his finger. After trying elevation, binding the finger with tape, ice, &c., as a last resource the patient was taken to a watchmaker, to see if it were possible to use a small file. In his agony, he requested that the finger might be amputated. On looking round the shop, Mr. Hovell saw a vice, in which he instantly placed the ring, surrounding the finger, and with a smart blow of a hammer released the patient.

The late Mr. Hovell was not only a very good surgeon, but exceedingly quick in his resources, and his memory is still green in the remembrance of

Yours obediently,

Jan. 7th, 1889. F.R.C.S.ENG.

STYLOGRAPHIC PENS.

MESSRS. BURGE, WARREN, AND RIDGLEY, of Clerkenwell-green, E.C., have submitted to us a specimen of their stylographic pens, of which we can speak in terms of commendation. They lie lightly in the fingers, are of excellent construction, and, unlike some pens of the class, which require to be held almost vertically in order to produce the desired result, may be used effectively at a convenient angle, almost like an ordinary pen. With some persons the fact that they are of British manufacture will be an additional recommendation.

Jas. Harrison, M.B.—All but the later numbers of THE LANCET are out of print.

A BUTTON-HOOK IN THE INTESTINES.

To the Editors of THE LANCET.

SIRS,—Allow me to send you a note of another case of a button-hook passing through the intestinal canal. It was under my care about twenty-eight years ago.

A boy about seven years of age, sitting at table in the nursery with his young brothers and sisters, was playing with an old button-hook. The wooden handle had long been broken off; only the iron part remained. The nursery maid told him to put it down. "Shan't," said the boy. Upon her going to take it from him he put it into his mouth, hook foremost, and swallowed it at once. The mother reported the case to me, and asked what was to be done. I advised that all the motions passed by the boy should be examined, and that no purgative medicine of any kind should be given. Three or four days afterwards I was told that the button-hook had been passed per anum without difficulty, and no further inconvenience was found.

I am, Sirs, yours truly,

Oxford, January, 1889. E. L. HUSSEY.

THE TOKYO MEDICAL LIBRARY.

THERE has been issued by the Sei-i-Kwai, or society for the advancement of medical science in Japan, a catalogue of the medical library which the Society established at Tokyo in 1885. During these few years it has succeeded in accumulating a fairly representative collection of English and American medical works. Authors and publishers cannot do better than bear in mind the existence of this society, which is doing much to further medicine in Japan.

MILK AND TYPHOID FEVER.

To the Editors of THE LANCET.

SIRS,—With regard to Mr. Adam Gibson's suggestion that enteric fever may be produced by cow's milk, I am inclined to think there is more truth in this idea than one might imagine. In India it is, I believe, well known that cows and tame buffaloes are more or less scavengers, and I have often observed them licking up excrement (from human downwards) on the roads and middens. In one Indian station where I was quartered there was certainly no question as to the perfect water supply and good sanitary surroundings of the soldiers, yet enteric fever often appeared. My own idea, with that of other medical officers I met, certainly favoured its origin through the medium of impure milk, by reason of the filth the animals fed on.—Yours faithfully,

Dover, Jan. 5th, 1889. J. D. RECKITT, Surgeon, M.S.

To the Editors of THE LANCET.

SIRS,—It is now about eleven years ago that I called your attention to the above, in a letter which, like many others, probably (owing to want of space) was consigned to the waste-paper basket. I used almost the precise words of Mr. Adam Gibson in my description of my belief. It is needless to allude to the facts; but I should be glad to correspond with the above gentleman on the subject, if he chooses to request me to do so. Before that eminent veterinary surgeon, Fleming, introduced the subject in your columns, the idea struck me on seeing cows drinking filthy water containing their own excrement, it being, as I was informed, the only water available in the neighbourhood. I do not want to lay claim to any scientific discovery; but I bitterly regret you did not then publish my letter and opinions, in order that credit might be given to whom credit is due. I am, Sirs, yours faithfully,

Jan. 7th, 1889. AN OLD CORRESPONDENT.

BEES AS SUGAR TESTERS.

THOUGH to the human palate cane sugar, beet root sugar, and saccharin are pretty much alike, it is said that bees are much more discriminative. They will have nothing to do with either of the last-named two substances. Glycerine they will take, only, however, it is said, if it be pure.

UNQUALIFIED ASSISTANTS.

Twelve Years' Service writes on the hard cases of men unqualified as affected by the recent action of the Medical Council. We do not remember any intimation on the part of the Council of an intention to recommend the institution of a special examination in their favour. The ordinary curriculum is no harder for them than for others, and there would be obvious unfairness in making a difference.

ERRATUM.—In the report of the meeting on the 17th ult. of the Medical Society of London, published on Dec. 22nd, page 1226, the first portion of the remarks of Dr. Hughlings Jackson requires correction by the insertion of the word "not" in the fourth line after "muscle," and the omission of the word "escaping" at the end of the sentence. The whole passage will then read thus: "Dr. Hughlings Jackson showed a girl aged twelve, who had a malposition of the left scapula consequent on paralysis of the inferior part of the trapezius, that part of the muscle *not* supplied, or mainly supplied, by the spinal accessory nerve."

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Theodore Williams, London; Sir W. Mac Cormac; Dr. Handford, Nottingham; Mr. J. Collier, Manchester; Mr. Somerville, Swanage; Mr. Lawson Tait, Birmingham; Mr. F. E. Cane, Leeds; Dr. J. Harrison, North Shields; Dr. Leach, Dorset; Messrs. Forsyth, Glasgow; Mr. Nathan Allen, Lowell, Mass.; Signor D. Benavente, Santiago; Dr. Fletcher Beach, Darenth; Dr. Whitla, Belfast; Dr. J. W. Ogle; Mr. Feeny; Mr. F. R. Fisher; Mr. Shean, London; Mr. Fuge, Taunton; Mr. Hardy Wells, London; Dr. Dobell, Bournemouth; Dr. Hussey, Brighton; Mr. H. W. Allingham, London; Mr. Barlow, Birmingham; Dr. Smith, Belfast; Mr. Barnardo, London; Dr. Jenkins, Whiffiet; Mr. Reckitt, Dover; Mr. Beaumont, Bournemouth; Mr. Halley, London; Mr. J. Poland, London; Mr. Jas. Thomson, Glasgow; Dr. Rendall, River Gambia; Dr. T. G. Garry, Liverpool; Dr. Greenlees, Stone; Dr. H. Marshall, Clifton; Mr. W. A. Morris, London; Mr. Whitfield, Manchester; Mr. Sanderson, London; Mr. Lewis, Rainhill; Mr. Smith, Eccles; Mrs. MacCullagh, Uttoxeter; Dr. Adamson, Durham; Mr. S. Rutherford, Pulborough; Mr. Michelli, Greenwich; Messrs. Arnold and Son, London; Mr. W. G. Williams, Liverpool; Dr. Durran, Upton Park; Dr. T. Acland; Dr. Sedgwick, London; Messrs. Richardson and Co., Leicester; Mr. Pilkington, Ormskirk; Messrs. Cassell and Co., London; Mr. Hussey, Oxford; Dr. McFadyean, Leith; Mr. C. Wakely, London; Mr. Rentoul, Liverpool; Dr. E. Wiener, Risano; Dr. Paterson, Dundee; Mr. Holmes, Southam; Dr. Kelso, Kincardine; Mr. Mossop, London; Mr. Holland, Barnsley; Dr. A. Reid, London; Mr. Sutton, Cheshire; Mr. Benson, London; Dr. Chervin, Paris; Mr. Marten, London; Mr. Clifford; Irish Linen Co., Belfast; G. F. P.; Physician; X. Y. Z.; General Hospital, Birmingham; An Old Correspondent; W. W., Wilts; Bristol Royal Infirmary; Sister in Charge, Hitchin; Assistant; Sybil, London; T. F., Oldham; Sussex County Hospital; M. T., London; Dispenser, London; Editor, *Law Journal*.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Adams, Kent; Mr. Blanchard, York; Dr. Kerr, London; Messrs. Burgoyne and Co., London; Mr. Summerhayes, Hereford; Mr. Evans, South Wales; Mr. Dean, India; Mr. Mason, London; Messrs. Hawkes and Co., London; Mr. Hornibrook, London; Mr. Winchester, Cumberland; Mr. Tratman, Bristol; Mr. Nicholls, Suffolk; Mr. Cormack, London; Mr. Lawson, London; Mr. Holmes, Australia; Mr. Edgar, Hartlepool; Mrs. Aldridge, Southampton; Messrs. Maw, Son, and Thompson, London; Miss Richards, Clapton; Mrs. Griffith, North Wales; Mr. White, Suffolk; Dr. Wharton; Mr. J. Watson, Crouch Hill; Mrs. Ravenhill, Croydon; Mr. Kidd, Enniskillen; Dr. Horne, Scarboro'; Miss Bramley, Lincoln; Mr. Morton, Sheffield; Dr. Craig, Leicester; Mr. Lawrence, London; Mr. Heywood, Manchester; Dr. Hunt, Liverpool; G. W. R., London; F. M. G., Kilburn; Neurosis, London; Robinson, London; B. J. A., Derbyshire; Forceps, London; Dundee Royal Asylum; Scot, London; P. W. H., London; Medicus, South port; Ferrum, London; Orinoco; A. B., Birmingham; Christopher, London; L. T., London; Gradus, London; M.B., London; X. Y. Z., Manchester; M. H., London; Alpha, Wilts; Medicus, Wilts; Lady Superintendent, Bedford; B. C., Chester; Midlands, London; Eta, London; Genuine, London; Medicus, Margate; X. Y., Lancs; P. K., London; V. V., London; Oxford, London; Fides, London; Salix, London; Isis, London; Mrs. P., London.

Birmingham Daily Post, Surrey Advertiser, Hendon and Finchley Times, Brighton Herald, Bristol Evening News, Herald and Weekly Free Press, Hull Daily Mail, Reading Mercury, Beverley Echo, Bath and Cheltenham Gazette, Hertfordshire Mercury, Invergordon Times, The St. Moritz Post and Davos and Maloja News Christmas Number, &c., have been received.

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